

University of Montana

## ScholarWorks at University of Montana

---

Graduate Student Theses, Dissertations, &  
Professional Papers

Graduate School

---

2002

### Wild turkeys in Montana| The history, management and future of the Treasure State's adopted game bird

John W. Hafner  
*The University of Montana*

Follow this and additional works at: <https://scholarworks.umt.edu/etd>

**Let us know how access to this document benefits you.**

---

#### Recommended Citation

Hafner, John W., "Wild turkeys in Montana| The history, management and future of the Treasure State's adopted game bird" (2002). *Graduate Student Theses, Dissertations, & Professional Papers*. 4090.  
<https://scholarworks.umt.edu/etd/4090>

This Thesis is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Graduate Student Theses, Dissertations, & Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact [scholarworks@mso.umt.edu](mailto:scholarworks@mso.umt.edu).



**Maureen and Mike  
MANSFIELD LIBRARY**

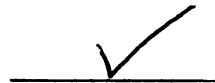
The University of  
**Montana**

---

Permission is granted by the author to reproduce this material in its entirety,  
provided that this material is used for scholarly purposes and is properly cited in  
published works and reports.

**\*\*Please check "Yes" or "No" and provide signature\*\***

Yes, I grant permission



No, I do not grant permission



Author's Signature: John W. Hafner

Date: 5/14/02

Any copying for commercial purposes or financial gain may be undertaken only with  
the author's explicit consent.

---



Wild Turkeys in Montana:  
The History, Management and Future of  
the Treasure State's Adopted Game Bird

by John Hafner

B.S. Penn State-Behrend, 1998

presented in partial fulfillment of the requirement

for the degree of

Master of Arts

The University of Montana

May 2002

Approved by:



Committee chair



Dean, Graduate School

5-15-02

Date



UMI Number: EP35499

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI EP35499

Published by ProQuest LLC (2012). Copyright in the Dissertation held by the Author.

Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code



ProQuest LLC.  
789 East Eisenhower Parkway  
P.O. Box 1346  
Ann Arbor, MI 48106 - 1346

## Wild Turkeys in Montana: The History, Management and Future of the Treasure State's Adopted Game Bird

Committee Chair: Clemens P. Work *cpw*

---

This series is an in-depth look at wild turkeys in Montana: how they got there, the problems surrounding their management, and how wildlife officials and turkey enthusiasts are working together to propagate them for sportsmen across the state.

My decision to choose this topic stemmed from a lifelong appreciation of wild turkeys. I grew up hunting and observing them in the mountains and hardwoods of Pennsylvania, and when I moved to Montana in June 2000 to pursue my master's degree, I wanted to learn all I could about the turkeys that inhabit Montana's diverse landscape.

When I began my research, I soon discovered that wild turkeys are very much a recent phenomenon in Montana. Their tenure under the Big Sky is a mere 48 years. But in that short time they've grown in both number and popularity, and are becoming a sought-after game bird by increasing numbers of hunters across the state. They offer sportsmen a change of pace from the "horned and hoofed" hunting for which Montana is known.

However, the state must address turkeys' unique management concerns for them to be a viable game bird for future generations of Montana hunters. Since wild turkeys aren't native to Montana, the state considers them a low priority. The problem is further complicated by turkeys' reliance on handouts to survive Montana's winters, and the fact that they often live close to residential areas. Many of Montana's flocks consist of a mix of wild turkey sub-species, as well as pen-raised turkeys that lack the survival instincts of wild birds. This makes it very difficult to maintain a clean gene pool.

Many eastern states cleared these hurdles decades ago, but as wild turkey populations were transplanted westward and northward, it was only a matter of time before Montana would face these issues. While the adopted game bird has secured a home in Montana, it needs the cooperation and compromise of state wildlife officials, sportsmen and landowners if it is to gain legitimacy and carve its niche among the ranks of Montana's native game animals.

## **Table of Contents**

Turkey hunting in Montana: The thrills of pursuing the non-native game bird	2
The grandfathers of wild turkey management in Montana	9
Montana's first wild turkey release, and the problems it had sustaining the original flock	11
Montana's first wild turkey management plan	19
The non-native species issue	25
The perils of pen-raised wild turkeys	30
The problems with the Flathead Valley (Sidebar 1)	43
Supplemental winter feeding	50
Montana's new upland game bird program (Sidebar 2)	64
Critical assessment of FWP, and an overview of its relationship with the NWTF	67
NWTF statistics (Sidebar 3)	76
The NWTF and wild turkeys in Montana and other western states (Sidebar 4)	79
Bibliography	80
Map of occupied and potential wild turkey habitat in Montana	83

## Acknowledgements

I would like to thank my committee members, Clem Work, Keith Graham and Tom Roy, for keeping me on track and helping me bring this project to completion. Their suggestions and guidance are much appreciated.

I would also like to thank all those whom I interviewed. While too many to thank individually, I want to recognize them collectively for their time, insights and opinions.

A special thanks goes to Dale and Jennifer Manning, Andrew McKean and Scott Godown. Their consistent willingness to answer my questions and keep me informed of news and events relevant to this project was instrumental. Their enthusiasm for wild turkeys is contagious; Montana couldn't have better leadership at the helm of its state National Wild Turkey Federation chapter.

A special thanks also goes to the folks at Montana Fish, Wildlife and Parks for their time, expertise and perspectives. I especially want to thank Bob Greene, Bob Eng, Mack Long, Bill Thomas and John McCarthy for taking time from their busy schedules to meet with me and help me throughout the process.

I would also like to thank Fritz and Sydnee Keck, who graciously allowed me to hunt on their property, and helped me end my sole spring turkey season in Montana with a bird in the freezer and some great memories that I'll always cherish.

And a very special thank you goes to my wife, Holly, for supporting and encouraging me - and for making sure I had enough coffee to keep me going as the months flew by and deadlines nipped at my heels ... when taking a break simply wasn't an option.





## **Turkey hunting in Montana: The thrills of pursuing the non-native game bird**

The forest awakens to the calls of songbirds as the sun slowly rises above the mountaintops. You're sitting at the base of a large Ponderosa pine on a small knoll along the back edge of an alfalfa field - a perfect spot to watch both the field and the wooded creek bottom behind you.

As you take in the chilly April morning, a thunderous "gobble-gobble" erupts from somewhere behind you. Your senses sharpen, and you scan the terrain intently as far as you can see. You're careful not to move, lest the turkey spots you and ends the drama prematurely.

You answer with a convincing "yelp-yelp-yelp" hen call, and the gobbler sounds off again.

He's getting closer; you can hear his footsteps in the leaves.

Your heart pounds as you see the bird. He's cresting the near side of the creek bank, eyeing your hen decoy all the while. He's intent on making his presence known. He fires off a rapid series of gobbles as you entice him with your calls.

As the gobbler closes the gap to a mere 25 yards, he stops and struts for your decoy. His long, thick beard, bright red head and broad tail fan are telltale signs of a dominant gobbler. He circles the decoy, making sure the plastic hen sees his striking beauty. Though the decoy seems unimpressed, the gobbler persists.

Your heart feels like it's in your throat as you take aim and squeeze the trigger with sweaty, quivering hands.

The gobbler collapses in his tracks as the sound of your shotgun blast echoes through the valley. You kneel beside the bird and take in the moment, trying desperately to regain your breath and slow your frantic heartbeat.

The hefty gobbler, whose feathers sport an array of iridescent colors, will make a handsome addition to your trophy room, as well as a tasty, healthy meal for your family.

Though wild turkeys aren't native to Montana, they have grown in popularity in recent years. Many Montana hunters, who are accustomed to pursuing elk, bears, moose, deer, bighorn sheep and other big game, are discovering the challenge of matching wits with a wily old gobbler. But with the wild turkey's increasing popularity have come a host of unique management concerns, which the state must address if turkeys are to be a viable game bird.

The state considers turkeys a low-priority species because they're non-native. Turkeys need supplemental food sources to endure Montana's brutal winters, but the state has historically banned any form of artificial feeding of wildlife. And the mixing of wild turkeys with pen-raised turkeys, which Montanans have released since the early 1900s, has made maintaining a clean gene pool nearly impossible in many parts of the state.

Turkey hunting is a classic example of man against beast. Predator versus prey. Sometimes you get the bird; sometimes the bird gets the better of you and sneaks away, leaving you wondering how it could vanish right before your eyes.

It's the uncertainty of how a turkey will act and respond to your calls that most hunters find irresistible.

"Just having the opportunity to get close to a gobbler is what drew me to turkey hunting," said Dale Manning. Manning is an award-winning taxidermist and vice president of the Montana state National Wild Turkey Federation (NWTf) chapter. He has been hunting turkeys in Montana since the late 1980s, and has harvested 12 spring gobblers.

“You just have to do it once, and then you’re hooked. After that, you don’t need anyone to explain to you how awesome it is,” he said. “People who don’t understand the appeal just have to experience a turkey hunt for themselves to realize what all the hype is about.”

“It’s a lot like elk hunting, since you have to call in the gobbler within gun range, just like you call in a bull elk,” he said. “But unlike elk hunting, if you mess up, or if things just don’t go your way, there’s likely another nice gobbler on the next ridge. But if you screw up on a big bull elk, that might be the only one you’ll ever get a chance to shoot.”

Dale’s wife Jennifer is also hooked on turkey hunting. “No two turkey hunts are the same,” she said. “You just never know what’s going to happen.”

She’s the secretary of the Montana state NWTF chapter, as well as the coordinator for Montana’s “Women in the Outdoors” program, an educational program of the NWTF designed to introduce women to hunting, marksmanship, fishing, backpacking, wildlife photography, and other outdoor activities. She has been turkey hunting in Montana since 1993, and has harvested seven gobblers.

“I never get tired of hearing turkeys gobble, and I always feel bad when I pull the trigger because I have such appreciation for turkeys, and I never want my hunt to be over,” she said. During a spring hunt in 2000, the Mannings called in 15 gobblers in one day before Jennifer finally shot one. She said she has a stockpile of feathers in their garage - a shrine to all the gobblers she has shot, and all the memories she and her husband have shared in the turkey woods.

“A good day turkey hunting isn’t necessarily shooting a bird,” she said. “Whether you get a bird or not, you always come home with a good story. The challenge of it is that it’s never a sure thing. If it was, I wouldn’t be doing it.”



There's nothing like the adrenaline rush turkey hunting offers those who venture into the bird's domain. As wild turkey populations continue to grow across Montana, more and more hunters are becoming addicted to the sights, sounds and thrills of turkey hunting.

Manning said the fact that turkey hunting creates a spring hunting opportunity is one of its biggest draws. It's a great cure for cabin fever, he said.

The number of taxidermy orders he gets for spring gobblers is proof of the sport's growing popularity. "In the mid-1980s, I'd do a handful of turkeys each year, and probably 15 or 20 a year by 2001," he said. "Now, with the 2002 spring season just a few days old, I've already got orders for six turkey mounts."

Montana's wild turkeys have been hunted since 1958 - just four years after the first release in the state - and turkey tags have been mandatory since 1959. The first spring gobbler-only season was in 1962.

Season lengths have changed over the years. The fall 2001 season lasted from Sept. 1 to Dec. 15, and the spring 2002 season will run from April 13 to May 11. Sportsmen can hunt all day long in each season, and Sundays are open, too.

In most areas, the bag limit is one bird per season. However, in Region 7 in southeast Montana (the region with the highest population, from which most turkey traps occur), hunters can save unused fall tags and harvest two spring gobblers.

Montana Fish, Wildlife and Parks (FWP) has divided the state into seven geographic regions and two hunting zones. The central and eastern parts of the state hold significantly larger populations of turkeys, and are open to hunters in both the fall and spring turkey seasons. Anyone with a turkey tag can hunt wherever he or she likes, provided they have permission if hunting on private land. Spring hunting draws many

more hunters; successful fall turkey hunters in eastern Montana are typically deer and antelope hunters who happen to see a flock of birds at long range.

In western Montana, the hunting is limited. Several counties are closed to fall turkey hunting, and the rest operate on a permit system, with a set number of tags distributed via a lottery system. Many western Montana counties are only allocated 5 or 10 spring gobbler permits. When several hundred hunters put in \$3 each for a chance to harvest a bird, the limited tags become a hot commodity. Some western Montana turkey hunters have tried unsuccessfully to draw a permit for 15 years or more.

The Flathead Valley also operates on a drawing system for fall hunting. In 2001, 300 fall tags were issued.

Hunter success has soared from 19 percent in 1958 to around 50 percent since the late 1980s. FWP estimates that hunters have harvested over 65,000 birds in the past 40 years.

Turkey hunters must purchase a conservation license and a turkey tag. For residents, the package costs \$9; for nonresidents, it's quite a bit more at \$122, plus an additional \$110 if you want to hunt other upland game birds in the fall.

Most diehard turkey hunters, like the Mannings, willingly make the 600-mile annual spring pilgrimage from western Montana to hunt turkeys in the open regions of eastern Montana.

Just as turkeys were transplanted to Montana, so was the sport of hunting them. Many of the state's serious turkey hunters are from the East, and have brought their passion for turkeys and turkey hunting with them to Montana. When Scott Godown moved to Montana in the mid-1990s from eastern Pennsylvania, he couldn't believe the amount of habitat that didn't hold any birds. Shortly after moving to Montana, he started the Missoula Long Spurs chapter of the NWTF.

“Most locals aren’t interested at all in turkey hunting,” said Ron Stuber, who is also from Pennsylvania, and has been a NWTF member since the late 1970s. “They don’t see it as a challenge, and they feel that you can hunt without a lot of knowledge about turkeys and turkey calling, and simply walk through the woods and bag a bird.”

Legitimizing the sport as an exciting, fair chase opportunity for hunters is a challenge for the NWTF in Montana. The presence of pen-raised birds makes this difficult, especially when those are the type of turkeys with which the public is most familiar.

But regardless of sub-species issues and pen-raised turkeys commingling with wild birds, the sport is slowly but surely carving out its niche among Montana’s hunters. People with varying degrees of turkey hunting experience are giving the sport a shot, and discovering that there’s more to hunting in Montana than just horns and hooves.

“There’s a great future for turkey hunting in Montana,” said Gerry Linneweh, president of the NWTF’s Bitterroot Long Beards chapter in western Montana.

“Everyone from my neighbor to my dental hygienist has told me they’ve either started turkey hunting, or can’t wait to go for the first time.”



## **The grandfathers of wild turkey management in Montana**

The old white coffeepot breaks the midday silence with a piercing screech. Bob Greene and Bob Eng, 83 and 74, respectively, nod and slowly extend their cups as Greene's wife gives them a warm-up and politely insists they finish the last of her chocolate chip cookies.

As they sip their coffee and stare at the songbirds outside the kitchen window, their conversation shifts from the weather to the early days of wildlife management in Montana. Their longtime friend Don Brown, who, in the mid-1940s was Montana's first big game biologist, pulls up a chair.

The bond between the three friends is manifest in the way they lose track of the afternoon. More than 50 years of shared memories surface as they swap stories of days long since past, and somewhere between plates of cookies, the tale of Montana's wild turkeys begins to unfold.

Greene and Eng are largely responsible for the wild turkey's presence in Montana. They worked on turkey transplants from 1954 until 2000, and their service as the state's primary turkey trappers for the first 46 years of the wild turkey's history in Montana is perhaps their greatest legacy. They humbly refer to themselves as the "oldest duck banders in the world," but their work for Montana's wild turkeys deserves recognition.

The duo was a part of every turkey transplant in Montana from 1954 until 1985, and Greene coordinated each one. After 1985, they volunteered with several other releases until 2000. While they joke that they "have no idea" how many wild turkeys they released, Fish and Game records indicate that they were a part of at least 115 transplants and the release of more than 2,000 turkeys.

Their friendship has grown deep since they first met in 1951, Greene said. “We’ve worked together since the beginning of time, and we’ve never had a bad day,” he said.

Greene spent his career with Montana Fish and Game, and he retired in 1985. Eng left the department in 1965 for a wildlife biology position at Montana State University in Bozeman, but continued to assist with turkey releases. Eng retired from the university in 1992, but like Greene, continued to work with Montana’s turkey transplants until 2000. He represented Montana at the first National Wild Turkey Symposium in Memphis in 1959.

Besides turkeys, Greene and Eng worked with waterfowl, sage grouse, sharp-tailed grouse, geese, mountain grouse and pheasants.

Greene and Eng’s combined 92 years of firsthand experience with Montana’s wild turkeys have been invaluable to the state. They’re quick to say that if they hadn’t done it, someone else would have. But the fact remains that no one else did, and they were the ones that got the ball rolling all those years ago.

When asked his thoughts on wild turkeys in Montana, Brown slowly takes a sip of coffee, flashes a wide, pensive smile and says, “I let Greene and Eng take care of the turkeys.”

### **Montana's first wild turkey release, and the problems it had sustaining the original flock**

In the summer of 1954, Bob Eng and fellow biologist Bill Bergeson spent a week evaluating wild turkey habitat in Colorado. Their assignment from Montana Fish and Game: to determine if Montana could sustain a viable flock of wild Merriam's turkeys.

By all historical accounts, wild turkeys are not native to Montana. The Treasure State's diverse pine-covered ridges, rolling plains, sage brush breaks and riparian corridors have long been home to a wide array of wildlife, but had likely never hosted a wild hen turkey and her brood or a love struck long beard.

Colorado is the supposed northern boundary of the Merriam's ancestral range, but in the early 1950s, Montana Fish and Game realized that the state's vast Ponderosa pine-covered ridges were likely suitable Merriam's habitat.

They found no reason to believe that turkeys couldn't survive in Montana, but they had no way of knowing just how tough it would be to support the birds early on. Wildlife officials had to devise clever ways to feed the turkeys and move them around the state to areas with suitable habitat. Some of their methods were unorthodox, but Montana Fish and Game's learn-as-we-go approach to wild turkey management proved successful in the long run.

Merriam's are one of five wild turkey sub-species found in North America. Others include the eastern, the Rio Grande, the osceola, and the Gould's. The different sub-species have adapted over time to different regions and climates, and they differ in their feather coloration, body size and other physical traits.

Merriam's thrive in the West's mountain habitat, and they do especially well in Ponderosa pine forests. Easterns occupy the deciduous forests of the eastern half of the

United States. Rio Grandes and Gould's are found in the river bottoms and arid country of the south-central United States and northeastern Mexico, and in southern Arizona and New Mexico, respectively. Osceolas have the most limited range; they occupy Florida's lush palmetto forests.

Eng and Bergeson returned to Montana confident that their trip was not in vain. On Nov. 12, 1954, just three months after their trek to Colorado, they drove 500 miles from Roundup, Mont. to Cheyenne, Wyo. to meet Colorado Division of Wildlife biologists. They picked up 13 wild Merriam's trapped in southern Colorado, loaded them onto a trailer, and, after an exhausting 600-mile drive, reached their destination in Lewistown in central Montana.

They woke at dawn after a brief nap, and released the five gobblers and eight hens in the Lime Kiln area in the Judith Mountains northeast of Lewistown. The sole onlooker was the landowner of the release site.

According to Eng, it was a relatively quick, quiet and uncelebrated beginning for Montana's Merriam's. But it soon became clear that the birds had acclimated to their new surroundings under the big sky, and that they were there to stay.

Although the early turkey release program was little more than a biological experiment with no allocated budget, it was fueled by the enthusiasm of Commissioner Ralph Shipley. A staunch proponent of increased turkey releases, Shipley was determined to make the program a success, Eng said.

What little money there was for turkeys back then came from the Pittman-Robertson Act. Passed by Congress in 1937, it allocated money to states for wildlife restoration, including funds for introducing new species into approved habitat. The money came directly from sportsmen's dollars through an excise tax on ammunition and firearms.



Montana has also used Pittman-Robertson money to move native species, including bighorn sheep, mountain goats and antelope, into new areas of the state.

Greene and Eng made subsequent releases of 18 and 26 wild-trapped Merriam's from Wyoming in 1955 and 1956 to southeast Montana.

These early releases resulted in an explosion from 57 birds in 1956 to more than 700 by 1958; they were the only releases in which Montana would use wild turkeys trapped outside its borders. By 1960, there were an estimated 2,000 Merriam's in Montana, all of which were found in the central and eastern parts of the state.

Despite a lack of funds and no official turkey management or trapping guidelines in those days, Eng and Greene managed to get the job done. Shipley's zeal for turkeys, which Eng said at times "drove everybody nuts," helped keep Montana's wild turkey experiment alive early on.

But even with Shipley's support, it was apparent that the newly released birds would need a hand, and that there were several lessons to be learned. The most immediate was that Montana's harsh winters could quickly wipe out an entire flock. With such a fragile and unstable population in those days, every bird was precious.

Shortly after the first release in 1954, Shipley, who held a commercial pilot's license, concocted a plan to help the birds make it through their first winter. He and Eng flew a single-engine propeller plane over several clear-cut hillsides covered with turkey scratching. As they passed over the turkeys' feeding sites, Eng tossed out bags of corn and grain.

"Our 'bomb sites' weren't very accurate," Eng laughed. "We were probably going 75 or 80 miles per hour, and sometimes the sacks would miss the open ridges and hit nearby trees and blow up." He said that on one run, the wind blew his glasses off,

squashing his chances of hitting his mark. These “bombing missions” lasted only a few months until the turkeys could find their own food, Eng said.

Other lessons had to be learned in the early days of the state’s floundering turkey program, Eng and Greene said, such as under what conditions rocket nets would malfunction. On a bitter cold January morning in 1960 on the Ft. Peck Game Range in central Montana, with temperatures near 30 below, they accidentally blew up two cannons while trying to net turkeys to supplement a prior release site.

They look back on the event now and laugh about it, but there was nothing funny about “shrapnel flying all over the place,” Greene said. The cannons had filled with ice, and blew up when the charges ignited. A third cannon on the same day also filled with ice, but rather than explode, the ice caused the net to break off from the projectile. When the charge ignited, the seven-pound steel projectile flew a few hundred yards - leaving the net inside the cannon - and landed in the landowner’s orchard right beside his house, Eng said.

The man and his family watching nervously from inside their house only added to Eng and Greene’s embarrassment, they said.

Another problem was how to effectively move large numbers of birds to release sites. Greene and Eng knew that they needed an easy way to transport turkeys, despite their consistent lack of funding.

Tom Mussehl, also a Montana Fish and Game biologist, solved the problem for them. When Shipley told Mussehl to have a box built for hauling turkeys, he had no idea what he was in store for, Greene said. Mussehl ordered a solid oak box from a carpenter in Lewistown; the box was custom made to fit in the bed of a pick-up, and it could hold 25 or 30 turkeys. It had a heavy canvas cover with a zippered opening to allow for easy

loading of turkeys into the box. Birds could be released simply by opening the truck's tailgate and removing a few boards.

Eng and Greene said they can't recall the cost of the box, but they do remember it was much more than Shipley allocated. Mussehl just charged it to the department, they said, and never gave it a second thought.

"It was an on-going joke in those days," Greene said. "The department didn't even have good cardboard boxes to put turkeys in, and then all of a sudden we got this fancy, custom-built box."

Dubbed the "turkey box," it quickly became the Cadillac of Montana Fish and Game's turkey transplants. Greene and Eng got more than 25 years of faithful service out of their beloved turkey box, until they finally retired it in the late 1980s. It was definitely worth whatever its sticker price was, Eng said.

Its weathered, somewhat-intact remains, which now lay dormant in Greene's garage in Warm Springs in western Montana, live on as a reminder of earlier days when two pioneering biologists helped put Montana's turkey population on the map.

Greene insists the box is still in working order, though its days of active duty are likely gone for good.

The turkey box only let them down once. While transporting a small flock of turkeys through Livingston, Mont. in 1988, Greene pulled off the highway for a short pit stop. As he got out of the truck, something caught his eye; a gobbler had escaped and was standing on the tailgate, staring right at him and apparently as surprised as he was, Greene said.

Greene surmised that the wind had pulled the zipper open on the box's canvas cover during the trip, and the gobbler had crawled through the small opening. As he

approached the bird, it took flight and landed near a sawmill, never to be seen by Greene again.

Such were the growing pains in Montana's early turkey days. Greene and Eng recall those days with boyish excitement and a gleam in their eyes.

The early turkey releases were meant to propagate the state's Merriam's population, while later traps and transplants were usually in response to crop damage reports from landowners who wanted to have habituated, "problem birds" taken off their property, they said.

Their most successful turkey releases occurred in Ponderosa pine forests mixed with grasses, deciduous trees and brush, with occasional openings and meadows.

Such habitat is found in the Custer National Forest in southeastern Montana and the Bull Mountains in south central Montana. Similar turkey habitat is found in the Missouri River breaks in eastern Montana, as well as the Judith, Snowy and Little Belt Mountains in central Montana. Comparable turkey range in western Montana is found in isolated pockets in the Flathead, Yellowstone, Missouri, Clark Fork and Bitterroot River valleys. All of these areas are sought-after turkey hunting destinations by sportsmen today.

The success of Montana's early experimental turkey releases is a matter of perspective. Today, Montana's turkey population is unofficially 85,000 birds, though ten different experts will likely report ten different numbers. The more common responses to the question of the state's wild turkey population range from "God only knows" to "I have no idea" to "a lot." And depending on whether you ask a wildlife biologist, a National Wild Turkey Federation (NWTf) volunteer, or a disgruntled landowner with turkey depredation problems, the program is either a great success story or a big mistake.

Wild turkey proponents, such as the NWTF, argue that the state has historically made a half-hearted attempt to propagate Montana's turkey population. Montana Fish, Wildlife and Parks (formerly known as Montana Fish and Game) has historically asserted that since turkeys aren't native to Montana, they're not as high a priority as native species, and that the work that has been done with turkeys has been adequate.

But as the NWTF continues to grow in Montana, and as more hunters take to the woods in turkey season, FWP is beginning to realize that it needs to better define its wild turkey management policies.

"Essentially what happened was that turkeys were released in Montana in the early 1950s, and they didn't do very well," said Bill Thomas, FWP information officer. "It's arguable whether it failed or not, or was given a good chance."

"The unfairness of it is maybe we didn't give it the best shot that we could have, and therefore that may be the factor that caused it to not succeed," he said. It's also very possible that many of wild turkeys from early releases fell prey to poachers, Thomas said.

The fact remains that wild turkeys have adapted to Montana, and, despite opinions either praising or condemning them, they're there to stay. FWP acknowledged this in the late 1990s, when it authorized the creation of its first wild turkey management plan.



### **Montana's first wild turkey management plan**

Although Montana had been trapping and transplanting wild turkeys for over 40 years, and had released nearly 2,000 birds by the late 1990s, it still hadn't drafted an official turkey management plan. Turkeys have traditionally taken a back seat to big game such as elk, deer, moose, bears, mountain goats and bighorn sheep. Wildlife officials have always advocated Montana's status as a "hooves and horns" state, but they have come to realize in recent years that its turkeys cannot be ignored.

When Montana Fish, Wildlife and Parks (FWP) finally decided to draft a turkey management plan in 1999, its options as to who would compile it were very limited. It came as no surprise that they turned to Bob Greene and Bob Eng, the veteran biologists who were the only ones in the state with any substantial, firsthand turkey experience.

The plan cost FWP just over \$4,300 for Greene and Eng's time, travel and lodging. It required them to drive nearly 1,500 miles throughout Montana and neighboring western states over several months to evaluate turkey release sites and habitat, and to assess the potential of proposed release sites in Montana.

The first part of the plan covers the history of wild turkey releases, management and hunting in Montana, in which they note that by 1970, there were at least 25 flocks with huntable Merriam's populations scattered throughout the central and eastern parts of the state. The fall of 1958 marked the state's inaugural turkey hunting season, during which sportsmen harvested 89 of Montana's estimated 700 birds. The first gobbler-only spring season was in 1962.

Greene and Eng also describe at length the Merriam's preferred habitat in Montana. Ponderosa pine offers turkeys straight, horizontal branches ideal for roosting,

and pine seeds for feed. The birds also rely on grasses and berry-producing shrubs for feed, and herbaceous undergrowth for brood habitat.

Greene and Eng also spell out the ideal criteria for selecting a Merriam's release site in Montana. Of utmost priority is proximity to stands of mature Ponderosa pine - preferably on public land, to allow public hunting as a population control mechanism. The absence of domestic flocks or pen-raised "wild" turkeys in the immediate vicinity is also important, since they could be released or escape the pen and interbreed with wild turkeys.

Other criteria include landowner commitment to allow public hunting if the birds are released on private property, and the guarantee that only wild trapped Merriam's would be used for transplants, in order to preserve the purity of the birds' gene pool, since Montana wishes to remain primarily a Merriam's state.

The plan also broadly covers turkey habitat evaluation in Montana, management considerations and habitat availability.

While these considerations seem elementary, they marked a significant beginning for effectively managing wild turkeys and their habitat in Montana. The plan was a much-needed starting point.

However, both FWP officials and National Wild Turkey Federation (NWTf) volunteers have criticized the six-page plan as being over broad, though both sides recognize that no one is at fault. With a history marred by a lack of funds, no time and little firsthand turkey management, any plan is better than no plan at all.

Scott Godown, former vice president of the Montana state NWTf chapter and founder of the Missoula chapter in western Montana, said it's "more of a history lesson than a management plan." But Godown realizes that Greene and Eng were for decades the only men licensed to trap turkeys in Montana, and therefore it's unrealistic to expect



a detailed plan with numerous researchers' contributions, he said. Like many other NWTF volunteers, Godown hopes for a revised plan in the near future, he said.

FWP officials agree that the plan needs to be more specific. "The first thing we told the NWTF and everybody else is that we don't have anybody with the expertise to do this plan," said Mack Long, FWP regional supervisor. "We're not a turkey management state. We can manage for elk or deer or grizzly bears, but we don't have the expertise for turkeys."

"But those were the guys in the 1950s and 1960s who were dealing with turkeys," he said, "so it's good to have their plan, and to preserve some of their thoughts on what they were involved with."

A revised plan should include detailed information on the distribution of flocks throughout the state, Long said.

John McCarthy, FWP's upland game bird coordinator, takes a pragmatic stance regarding the plan. "What we have laid out is a good start, and a good evaluation of turkey biology in Montana," he said. "You can take it from there and step it down to specific regions, which is what we need to do."

When evaluated alongside FWP's management plans for other species, the wild turkey plan isn't too far behind the curve.

Bill Thomas, FWP information officer, said Montana's first official plan for any species was for elk, and it wasn't finalized until 1992. A number of other species now have formal management plans, Thomas said, including deer, bighorn sheep and upland game birds such as grouse and pheasants. FWP is finalizing plans for other species, including waterfowl and bears. Until their plans are official, these species are controlled by what Thomas called "quasi plans," which are approved but unofficial guidelines for

controlling the species' populations; they're sanctioned goals and objectives, he said, but they have not yet been formalized in writing.

While each species has its own unique management considerations, there are some common themes among all game animals' management plans. Each plan focuses on hunting and habitat enhancement as the best ways to ensure the future of a species. Management plans contain a series of related steps, including a commitment to gather initial information to construct a plan, a set of responses in terms of hunting regulation changes based on that information, and a recognition that a species' habitat must be maintained to keep its population healthy.

In simpler terms, this means that FWP studies the management needs and problems of individual species, and then takes appropriate steps to keep wildlife populations in check.

For example, Thomas said that FWP's elk management plan has a specific list of responses for how it should handle fluctuating elk populations in west central Montana. When the region's herd is above the target population, FWP liberalizes the hunting season. Conversely, when the herd decreases, FWP restricts hunting by reducing the number of elk licenses.

Although there's a consensus that wild turkeys need a new, more specific management plan, FWP has already responded proactively with turkeys - just as it would under the guidelines of a more precise plan, Thomas said. While Greene and Eng's plan makes no mention of how to control turkey populations in specific areas, FWP realized in 2001 that the flocks in eastern Montana were well above carrying capacity. FWP responded by allowing hunters to save unused fall turkey tags and harvest two spring gobblers. The move has already helped keep the population at a more manageable size, Thomas said.

Although Greene and Eng's plan is vague in terms of defining wild turkey population control mechanisms in specific areas across the state, it does a good job of defining the broad issues FWP must tackle to sustain healthy turkey populations.

The main points Greene and Eng stress in the plan - with which all parties agree - are that turkeys' non-native status has created unique management concerns, turkey management in Montana has been minimal at best, and since the state is located on the northern fringe on the Merriam's expanded, or non-native, range, effectively sustaining them is tricky.

That opens the door to a host of unique management considerations. The most prevalent of these are turkeys' non-native status, their need for supplemental feeding to survive Montana's brutal winters, and the commingling of wild Merriam's with both eastern and pen raised "wild" turkeys, which have been released privately - and illegally - by Montanans throughout the state since the early 1900s.

Such hurdles are ones many eastern states cleared a generation ago. But as FWP works to refine its turkey management, and as the NWTF pushes northward and westward, it was only a matter of time before Montana would face these issues.



## **The non-native species issue**

Introducing non-native wildlife in Montana has always been taboo as far as Montana Fish, Wildlife and Parks (FWP) is concerned. The department's motto is "if it ain't native, don't mess with it."

Commissioner Ralph Shipley's zeal for turkeys sparked the early Merriam's releases in the 1950s, and no one voiced any concern about the birds being an exotic species, Bob Greene recalls. But times have changed. Today, FWP generally regards non-native wildlife as second class due to the problems they pose for native species.

Montana's classic case study for the effects of non-native species on native ones is the story of the westslope cutthroat trout.

According to John Fraley in an article in the March-April 2001 issue of Montana Outdoors, FWP's bimonthly magazine, the fish "have lived in post-glacial western Montana for thousands of years, ... but in less than 200 years since Meriwether Lewis first described the sub-species, the cutthroat's range has dwindled due to stream siltation, dams, over-fishing, and competition from - and hybridization with - introduced nonnative fish such as brook trout."

Because Mother Nature has been tampered with, FWP now tries to stock westslope cutthroats primarily in backcountry lakes. Only there will they likely be free from competition and the threat of hybridization with non-native trout and other cutthroat strains.

The bottom line for turkeys is that since they're not native to Montana, it's hard to legitimize them from FWP's perspective.

"Most of FWP's management is based on native and indigenous species, and when you start looking at messing with nature, there's usually some sort of an impact,"

said Mack Long, FWP regional supervisor. “Consequently, we’ve had crashes in our bull and cutthroat trout populations. When you mess with nature, there’s usually some sort of price to pay, and we don’t know what that is with turkeys.”

Bill Thomas, FWP information officer and avid turkey hunter, walks a fine line between department policy and personal ambition. “There’s a philosophy that if it ain’t native, it shouldn’t be a priority,” he said. “I don’t have that perspective, but you hear it a lot.”

“The focus both in fisheries and wildlife in this state for the past ten years has been on native species, and that focus is increasing,” Thomas said. “A biologist has a hard time rationalizing to himself why we should spend time and money re-running a turkey experiment that they assume failed.”

“Some folks have come to the conclusion that if we do this once more and we really give it a good shot, and it doesn’t work, there’s no sense in pouring money down this rat hole,” he said. “It will become more and more difficult to convince already skeptical people - those who determine the priorities and the purse strings.”

“The fact of the matter is wild turkeys are still one of the lowest priorities we have for spending wildlife biologists’ time and sportsmen’s money on,” Thomas said. “I suspect that’s beginning to change, but the demand for elk, mule deer, white-tail, bear and sheep almost totally consume our time and money, so turkeys have been and continue to be a low priority.”

Besides the popular big game animals, turkeys must compete with other upland birds for the state’s time and attention. John McCarthy, FWP’s upland game bird coordinator, said the majority of his time and the department’s upland game bird budget are spent on pheasants and grouse.

Like turkeys, pheasants are non-native to Montana, but they've had the good fortune of being popularized by a former legislator, McCarthy said. And sage grouse, which may soon be listed as endangered, are the hot topic in Montana upland bird management right now. McCarthy said there's a big push to enhance the sage grouse's prairie habitat, and he's working with private citizens and conservation groups to put together a sage grouse conservation plan.

According to McCarthy, FWP tries to spend 50 percent of its upland bird budget each year on native birds, which right now means sage and sharp-tailed grouse. About 49 percent is spent on pheasants, which leaves a paltry one percent for wild turkeys.

Pheasants have been in Montana a lot longer than turkeys, and there's more interest in hunting them, Thomas said. Since sportsmen have historically had less interest in hunting turkeys than pheasants, FWP is reluctant to tip the scales in the turkey's favor.

But Montana's National Wild Turkey Federation (NWTf) volunteers are working hard to get turkeys a bigger piece of the pie.

"They (FWP) have this [misconception] that turkeys won't generate any money," said Dale Manning, who in January 2002 was elected as vice president of the Montana state NWTf chapter. Manning said he believes the NWTf needs to reinforce to FWP that turkeys are a sought after resource by sportsmen, and that with a little more of the department's dollars and time, they could generate a considerable return for the state.

"This year, I'm going to get the numbers of applicants for turkey tags and show FWP what the interest for turkey hunting is in Montana," he said.

Joel Pedersen, a NWTf biologist at its headquarters in Edgefield, S.C., said he'd like to see FWP pay more attention to turkeys. "The excitement for turkeys isn't there as

it is for the hoofed and horned animals,” he said. “The big challenge in Montana right now is to create excitement within FWP and show them that there’s a financial impact as with other game.” Pedersen was the first NWTF biologist to visit Montana and work with both the NWTF chapters in the state and FWP.

But just how should the NWTF play the game and try to make turkeys a “money bird”? Manning said it should follow the example set by pheasant proponents, and lobby for legislative support. “It seems to be not what you know, but who you know,” he said. “It would be awesome to have a turkey-friendly person in the legislature, and we’re getting there. We’re climbing the ladder,” he said.

“The non-native issue is big, but we’re trying to sidestep it,” Manning said. “We’ve got turkeys in the state, and they need to be managed.”

FWP biologist Kevin Coates said the state has changed its stance on wild turkeys over the past few years. “FWP has come to a point of change,” he said, “and turkeys have integrated into Montana’s wildlife community.”





### **The perils of pen-raised wild turkeys**

People have been trying to establish flocks of wild turkeys from pen-raised birds in Montana since the early 1900s. About the only thing they've succeeded at is creating a biological disaster.

Montanans definitely had no shortage of pen-raised birds; turkey farming was big business in Montana during the Great Depression, and it's estimated that the state exported 140,000 birds in 1928. Domestic turkeys are credited with helping many Montana families survive the Depression.

As in many other states, including several in the East, early attempts by Montana landowners and sportsmen's clubs to release and sustain pen-raised wild turkeys in the early 1900s repeatedly failed.

Back then, many state wildlife agencies tried to establish wild flocks using pen-reared birds because they were easily obtained and inexpensive to mass-produce, compared to the time and money needed to trap wild, free ranging birds. Such cookie-cutter biology seemed logical, but it proved very costly.

A 1979 wild turkey restoration survey shows the magnitude of the mistake. The survey covered 36 states, and compared the success of releases involving both pen-raised and wild-trapped birds. According to the survey, 30,000 wild-trapped birds released on 968 sites resulted in 808 established populations. That's an 83 percent success rate. Conversely, more than 330,000 pen-raised birds released on almost 800 sites over a 20-year period resulted in 760 failures, for a dismal success rate of only 5 percent.

According to Rick Hoffman, avian researcher for the Colorado Division of Wildlife, in an article in the November-December 2001 issue of Colorado Outdoors, "by

the time restocking programs were initiated using wild-trapped stock, wild turkeys had been extirpated from 15 states, and their populations were at an all-time low.” But by releasing wild-trapped birds, it took less than 10 years to re-establish the extirpated populations, and the wild turkey’s range expanded exponentially, Hoffman said.

The reputation of pen-reared turkeys is anything but favorable, at least as far as Montana Fish, Wildlife and Parks (FWP) is concerned. Since breeding in captivity tends to wipe out the survival skills wild birds need to escape predators, find food and raise their brood, pen-raised wild turkeys tend to live in close proximity to man, rely on handouts and make a mess of yards, porches and driveways.

The National Wild Turkey Federation’s (NWTF) Technical Committee, a group of representatives from fish and game agencies in each state, published a bulletin in 1994 that defines the differences between pen-raised “wild” turkeys and truly wild turkeys. The Committee considers pen-reared wild turkeys to be “any wild turkey eggs or wild turkeys that have been hatched and/or raised under human control.” They define wild turkeys as “ recognized wild turkey subspecies and hybrids thereof hatched in the wild and free ranging, which are managed and regulated by state, provincial or tribal management agencies.”

The bulletin also explains the management concerns with pen-raised birds. It lists the biggest problems with pen-reared wild turkeys as the birds being (1) vastly inferior to wild-trapped birds for restoring populations to vacant habitat, (2) a conduit for avian pathogens, which affect wild turkeys, (3) a contaminant in the genetic makeup of wild populations, and (4) a nuisance to humans.

Jerry Wunz, considered by many to be the grandfather of wild turkey management in Pennsylvania, said the Keystone State paid a big price for experimenting with pen-raised birds. Wunz, 76, is a retired biologist with the Pennsylvania Game

Commission who spent a large part of his career working with turkeys. He has written a number of articles and scientific papers about wild turkeys and wild turkey management.

“Pen-raised birds set us back at least 20 years,” Wunz said. “As a result of switching to wild birds, we knew we could put them damn near anywhere we wanted to.”

“You can’t raise them in a pen and then turn them loose. It doesn’t work, and we found that out through a lot of hard work,” he said.

Wunz said Pennsylvania’s turkey stocking program began in the mid-1930s, when it obtained pen-raised wild turkey hens from Maryland, clipped their wings, and placed them in 10-acre pens. Wild gobblers would fly over the fences, mate with the captive hens, and then fly back to the woods, Wunz said.

A crew collected the eggs each day, and the eggs were incubated. The poults were raised in captivity for a few months and then released in the wild.

“We stocked thousands of them, and they disappeared in no time,” Wunz said, “but when we put out a handful of wild birds, they took off like gangbusters.”

Pennsylvania’s pen-raised birds were transported to other states for their turkey stocking programs, Wunz said. A few went to Germany. Some were rumored to have surfaced in northwestern Montana.

While most eastern states learned the pitfalls of pen-raised birds decades ago, many western states, including Montana, are still dealing with the problem. Montana landowners still buy and illegally release birds advertised as “wild” from feed stores throughout the state. The bulk of this activity is believed to occur in western Montana, which has a much smaller wild turkey population than eastern Montana.

While eastern Montana's flocks consist largely of wild Merriam's, many of western Montana's flocks are made up of eastern birds of suspicious - likely pen-raised - origin, as well as hybrids resulting from eastern-Merriam's crosses.

The birds can be a burden both for FWP and well-intentioned private citizens, who feed the birds once or twice, only to find out that the birds won't leave.

"Here in western Montana, we have a hodgepodge of junk," said Bill Thomas, FWP information officer, "which is regarded by us as feral domestic 'wild turkeys.' The turkeys people generally see in western Montana are illegal, feral 'wild' turkeys - with some notable exceptions, where we feel the original transplants held on."

"People here know about turkeys, but they don't understand the problems they create when they go to the feed store and order 'wild' turkeys, raise them in a pen, and then and let them go," Thomas said. "It's illegal, and those birds are pretty much all over the place. It's awfully hard to define where they are, where they came from, and who did it."

Thomas is known for referring to the feral domestic turkeys as "baseball bat birds," since all a hunter would have to do to kill one is club it over the head with a bat.

"Illegally released turkeys have given truly wild turkeys a bad reputation," he said. They're not challenging for hunters to harvest, so it's hard for the public to legitimize wild turkeys when it confuses pen-raised turkeys for wild birds. Most people don't perceive turkeys as a legitimate game bird, he said.

"Pen-raised turkeys demean what we turkey hunters understand to be a very challenging game bird that we respect," Thomas said.

The feral birds cause on-going headaches for FWP. For starters, it's often hard to identify a "feral" turkey. When landowners call FWP to report turkey-related problems, such as excessive turkey excrement on their lawns and porches, FWP's

standard plan has been to kill the feral birds and give the meat to local homeless shelters. FWP then tries to capture any truly wild turkeys in the flock and release them on public land away from residential areas, where the problems could be repeated.

But determining which birds are pen-raised and which are wild is not easy.

“Herein lies the problem,” Thomas said. “How do you tell if a wild turkey is a feral domestic wild turkey, or a real wild turkey? The only subspecies we have legitimately, legally released is the Merriam’s, and they’re distinguishable in their phenotype. Their feather coloration is different from the most common feral domestic subspecies, which is the eastern turkey.”

Merriam’s most distinguishing feature is either white or buffed tan feathers on the tips of their tails, while easterns have darker plumage. Hybrids are somewhere in the middle, with dark brown coloration on their tail feathers. When Merriam’s breed with illegally released, pen-raised turkeys, as is routine in western Montana, it’s hard to tell if a turkey is truly wild or not.

That’s why FWP generally looks at a bird’s location, rather than its coloration, for clues about its genetics.

“If you have Merriam’s-looking birds, and if they’re in a place we have documentation of releasing birds, we would probably assume that those birds are wild,” Thomas said. “Certainly, the eastern subspecies-appearing birds are not wild, and hybrids between the two really create identification problems.”

FWP and many NWTF volunteers would like to wipe out the feral population and re-stock with wild Merriam’s, but it will never happen. The damage has already been done, and removing the feral birds would be a public relations nightmare.

“We’ve tried in the past to take out as many pen-raised flocks as possible, but as wild birds are brought in, it becomes tough to draw the line” and target purely feral

birds, said Mack Long, FWP regional supervisor. “We need to take them out through hunting or another control - besides just the mentality of wiping out problem birds.”

“If we’re 99 percent sure that birds are pen-raised and released, then I’m OK with taking those birds out of the population,” he said. If they were quality birds, though, it would be worth moving them around to public property to give hunters access to them, Long said, but FWP won’t move birds with “questionable genetics.” FWP would like to start a strong Merriam’s population with good genetics in western Montana, but they don’t have a release site isolated enough to eliminate the threat of hybridization with pen-raised feral birds.

“We have to live with what’s here,” Long said, “but our philosophy is to stay with Merriam’s birds.”

The NWTF would also like to get rid of the feral turkeys and plant more Merriam’s in western Montana, but it’s just not realistic.

“It’s very tough to tell if the birds are pure ferals,” said Dale Manning, vice president of the Montana state NWTF chapter. “The public isn’t able to sort out the history of a flock and how they got there. All they’d see in the news is that FWP and the NWTF killed a bunch of birds. To them, a turkey is a turkey.”

“It would be nice to eliminate all the feral easterns,” Thomas said, “but politically, it’s not possible.”

That’s because the people who buy, raise and release pen-raised birds often feel a sense of ownership and responsibility for them, even after the birds fly the coop.

“Most people would never admit to letting them go, but they don’t want FWP to come onto their property and kill their turkeys,” Thomas said.

“It’s odd how many of these captive flocks have ‘escaped’ the pen,” said John McCarthy, FWP’s upland game bird coordinator. “The pen-raised eastern subspecies is

too available, and that's why FWP has tried to work with feed stores to limit and monitor the sale of pen-raised wild turkeys."

At this stage in the game, that seems like FWP's only hope. In 2000, it sent a letter to managers at all feed stores suspected of selling feral birds. The letter pointed out that "the birds you may purchase for re-sale are not really wild," and that "they have been raised in captivity for several generations." It stressed the dangers such birds pose to wild flocks, such as disease transmission.

Conditions in game farms, such as overcrowding, confinement and polluted drinking water and food, can all trigger disease in pen-raised turkeys. When the birds are illegally released, there's always a chance that they will transmit diseases to wild flocks.

Long said no diseases have ever been confirmed in Montana's wild turkeys, but its neighbor to the west has had problems with diseases transmitted from pen-raised turkeys.

According to Mark Drew, a veterinarian with Idaho Fish & Game, avian pox has been observed in some of Idaho's wild flocks. It causes scabs on turkeys' skin and lesions in their mouth and upper respiratory tract. Idaho's wild turkeys have also been exposed to mycoplasmosis, which causes swollen sinuses, labored breathing, swollen leg joints and other symptoms. Though exposure to mycoplasmosis has been determined through serological evidence, the disease has not been widely reported in Idaho.

Both avian pox and mycoplasmosis can be transmitted by direct contact with infected birds, and they're both found in domestic turkeys.

In 1984, the NWTf funded a study in cooperation with the Southeast Cooperative Wildlife Disease Study to determine what diseases pen-reared turkeys being bought and sold at feed stores and game farms around the country could



potentially transmit to wild birds. Researchers purchased pen-raised turkeys from unsuspecting breeders, and then tested them for disease.

The researchers tested 199 birds, and the results were frightening. Thirty-three species of parasites were identified, as well as seven disease agents. Two of the parasites and three of the diseases were deemed legitimate threats to wild flocks, and serious enough to cause early deaths in the infected pen-raised birds.

Disease transmission from captive animals to wild populations is always a concern, and turkeys are just one species where the risk can be high. In 1991, a game farm elk from Montana transported to an Alberta game farm was the source of a bovine tuberculosis outbreak that affected elk, cattle and people. And like other western states, Montana is on high alert for cases of chronic wasting disease (CWD) in both its game farm and wild elk and deer populations.

CWD is a contagious brain disease that affects deer and elk. It's similar to mad cow disease, and it causes elk and deer to lose weight and die. It has threatened wild populations since it was first identified in 1967 by the Colorado Division of Wildlife Research. Scientists believe that CWD probably didn't originate in pen-raised elk or deer, but its transmission has no doubt been accelerated by the transfer of game farm animals around the country.

CWD cases have been reported throughout the West, and have reached epidemic proportions in Colorado, where in the late 1990s wildlife officials slaughtered thousands of deer and elk - both domestic and wild - in an attempt to keep the disease from decimating wild deer and elk herds. Colorado game farm elk have been linked to confirmed CWD cases in Rocky Mountain National Park, North and South Dakota, New Mexico, Utah, Minnesota, Wisconsin, Texas, Oklahoma, Idaho, Indiana, Illinois, Kansas, Missouri, Nebraska and Pennsylvania.

CWD has also surfaced in Montana. In 2000, FWP ordered the slaughter of an entire herd at a Philipsburg elk farm after the disease was identified. To date, there have been no confirmed cases of CWD in Montana's wild elk or deer populations, but the risk of infected game farm animals escaping and transmitting the disease to wild ones is ever-present.

The stigma attached to elk farms, and the dangers they pose to wild elk populations, caused Montanans to vote for the passage of Initiative 143 (I-143) in 2000, which banned the creation of new elk farms and outlawed fee hunting on existing ones. The measure passed with overwhelming support.

"By passing I-143," said Dave Stalling, conservation editor for Bugle magazine at the Rocky Mountain Elk Foundation in Missoula, Mont., in a 2001 op-ed piece in the Missoulian, "Montanans reaffirmed our wildlife heritage," which is "based on the fair-chase public hunting and enjoyment of healthy, disease-free, wild, free-ranging elk and deer." I-143 will help prevent situations like the infected elk that spread CWD to the Alberta game farm, he said.

Former game farm owners have blamed I-143 for ruining their livelihood. After I-143 passed, they could no longer charge a fee to "hunt" the elk on their game farms, and they couldn't afford to stay in business without charging people to kill their elk. Many elk farmers opened their doors to the public and let people shoot their elk for free. Some Montana elk farms, like the Big Velvet Ranch near Darby, had to wipe out more than 800 elk.

While an epidemic as serious as CWD is very unlikely in wild turkeys, FWP wanted to stress in its letter to the feed stores that the chance of disease transmission from pen-raised turkeys to wild flocks is still a reality.

FWP's letter also implied that releasing feral turkeys is an injustice not only to wild birds, but also to the domestic birds themselves. Releasing pen-raised turkeys in the wild makes them easy targets for predators, since they don't possess the same survival instincts as wild birds.

The letter closed with the reminder that in Montana, a game bird license is required to "keep any upland birds for the purposes of obtaining, rearing in captivity, keeping, and selling birds or parts of game birds."

Anyone who purchases game birds must also be licensed by FWP. And he or she must "either have a permit to possess live game birds for non-commercial purposes, a zoo or menagerie license or a shooting preserve license." FWP reminded the feed store managers that only authorized shooting preserves may legally release game birds.

FWP received favorable responses from the managers, Long said. Many agreed to no longer sell pen-raised turkeys under the misleading "wild" label.

While a game bird farm license only costs \$25 (with a \$15 renewal fee), it seems as if FWP's was successful in deterring the sale of pen-raised wild turkeys.

"I think we've had total cooperation this year," said Thomas. He said FWP believes no feed stores in western Montana ordered or delivered any feral, pen-raised eastern turkeys in 2001. "If we can dry up that source, then maybe we can refocus on possibly reintroducing more wild Merriam's."

"The feral birds are genetic pollution," Thomas said, "and they're the biggest limiting factor to reintroducing wild Merriam's birds."

Employees at western Montana feed stores report they no longer sell poulters labeled as "wild." Karri Miles, a sales associate at Hamilton Feed & Farm in Hamilton, Mont., said their store no longer sells wild turkeys because they "don't want to go through the hassle of obtaining a license." They only sell domestic strains, she said.

However, bronze domestic turkeys still pose a problem, since they closely resemble the eastern wild turkey subspecies. As long as buyers and sellers of bronze domestics obtain the necessary licenses, it's perfectly legal for them to do business. It's not legal, though, to release the birds, which is something FWP essentially has no control over.

Not everyone agrees that pen-raised turkeys are always bad news, though. Some western Montana landowners, like Max Bauer, believe that feed store turkeys can adapt to natural conditions.

"I do not disagree with the theory that you can get bad birds from the feed store," Bauer said, "and I disagree with putting those birds where there are established flocks."

Bauer, a NWTf volunteer and avid hunter, bought some Merriam's poults in the mid-1990s from a feed store, raised them in a pen on his property, and then turned half a dozen or so loose. He had repeatedly asked FWP to release wild turkeys on his property, he said, but his request was continually denied, so he chose to get his own birds.

Bauer said he told FWP to write him a ticket, since it's illegal for private citizens to release turkeys in Montana, but that never happened. He was upset that landowners like him wanted turkeys, and, in his opinion, FWP wasn't planting as many birds as they could have in western Montana, he said.

"I didn't plant turkeys where I thought they'd harm the environment or other wildlife," Bauer said. "I planted turkeys where there were no turkeys."

Bauer believes the Merriam's bloodlines in eastern Montana aren't as pure as FWP believes like them to be. "We didn't get all the birds we have across the state from FWP transplants," he said. He believes some of the Merriam's taken to western Montana from the eastern side of the state are the progeny of pen-raised Merriam's, he said.

“My theory is that this awesome turkey hunting Montana has right now is a combination of the FWP plants and those of the private sector,” Bauer said, “and I believe the private sector has contributed more birds to the total population than FWP.”

Bauer’s theory can never proven, but it illustrates the point that in many parts of the state, Montana’s wild turkey flocks are indeed a “hodgepodge of junk,” as Thomas said. It’s very likely that many of Montana’s wild turkey populations - especially those in western Montana - are an even mix of pen-raised and wild descent.

“This is something that could’ve happened elsewhere, but Montana just had the misfortune of having it happen here,” said Manning.

In fact, similar situations have occurred elsewhere. Colorado and other western states are also familiar with the problems of pen-raised wild turkeys.

“Despite laws prohibiting their release, game farm turkeys can still be found in Colorado,” Hoffman said in his article. “Whether these birds were deliberately released or escaped from captivity is unknown.”

Wyoming also has a history of problems with pen-raised wild turkeys, said Harry Harju, assistant chief of Wyoming Fish and Game’s Wildlife Division and a Wyoming NWTF Technical Committee member.

Harju has worked hard to convince landowners not to illegally release pen-raised birds, he said. He gets 30 to 40 calls each year from people who want turkeys, and have considered buying and releasing domestic birds.

The lessons of the past are clear: pen-raised turkeys don’t belong outside the pen. They’ve degraded the reputation of wild turkeys as a challenging game bird, and, as a result, have contributed to the turkey’s low-priority status in Montana. Until FWP and the NWTF convince the public to keep them in the pen, Montana’s wild turkey flocks will continue to be polluted with inferior genetics.



### **The problems with the Flathead Valley (Sidebar 1)**

The Flathead Valley in northwestern Montana perfectly illustrates the perils of trying to manage pen-raised, habituated wild turkeys that take advantage of well-meaning landowners.

The valley comprises much of Lake and Flathead counties, and consists largely of small tracts of privately owned, subdivided land and small agricultural operations. Though the valley holds parts of the Flathead and Kootenai National Forests, Forest Service land and corporate and state timber lands, the bulk of it is privately property.

And the birds that live there - an estimated 5,000-10,000 eastern wild turkeys - are perhaps the most controversial in the state. For starters, they're not the Merriam's sub-species, which is Montana Fish, Wildlife and Parks' (FWP) preferred bird for traps and transplants around the state. The Flathead easterns have become a nuisance for many landowners, since living alongside man has made them habituated and dependent on handouts to survive the valley's harsh winters.

FWP now tries to contain the easterns to the valley. It will never remove any for transplanting purposes, and it will never bring any Merriam's into the valley. To do so would taint bloodlines.

Just how the birds got there is somewhat of a mystery. The transplants that Green and Eng worked on all involved wild-trapped Merriam's, and FWP has never sanctioned a release of easterns in the Flathead. The prevailing theory is that in the early 1960s, a group of wealthy sportsmen in Kalispell in the Flathead Valley, known locally as the "Doctor's Club," had contacts at a Pennsylvania game farm. It's believed the club used its connections to smuggle a small flock of pen-raised eastern turkeys into Montana, and then propagated the birds on their collective land holdings in the valley.

FWP has never supplemented the valley's population. Other than the club's alleged release 40 years ago, no new wild turkey releases have occurred there.

The thousands of birds that roam the valley today, then, are most likely the progeny of pen-raised wild turkeys. National Wild Turkey Federation (NWTf) biologist Joel Pedersen said the habituated traits he's observed in the Flathead birds, such as a lack of fear of humans, indicates that they came from game farm stock, and that wild traits have been bred out of the birds.

While there were no laws in Montana back in the 1960s regarding turkey releases, such an act today would have serious legal consequences.

"There was no penalty back at that time, and not even any concern, and their intentions were probably legitimate," said Bill Thomas, FWP information officer.

Jerry Wunz, a retired biologist with the Pennsylvania Game Commission, said it's very likely that the birds came from a privately owned game farm in central Pennsylvania that operated until the mid-1980s.

"We've gotten away with doing nothing and getting lots of birds," said Jim Williams, FWP wildlife manager in the Flathead. The valley is a mix of deciduous and coniferous trees - just like turkey habitat in many eastern states - so the birds have fared well, he said.

Many Montanans have a love-hate relationship with the Flathead flocks. They enjoy watching the turkeys and hearing their calls, but the birds are often reluctant to leave the comfort and safety of yards, barnyards and porches.

But it's perhaps unfair to place the blame solely on the birds themselves. FWP biologist Kevin Coates said some landowners may be at fault for the sticky situation. Many out-of-staters move to Montana, buy their "little piece of heaven," and immediately start feeding wildlife on their property, he said. Such landowners are often



the first to report turkey damage, yet they seldom - if ever - allow public hunting to mitigate the problem, he said.

“When they’re roosting on people’s cars and crapping all over sidewalks, they’re a real nuisance,” said Mack Long, FWP regional supervisor. “When you have people who create mini refuges by not allowing hunting, you end up with an abnormal amount of birds, and they go out and make a mess in residential areas.”

“Personally, I don’t think people have a right to complain about the numbers if they’re not going to let anybody come on their property and do any harvesting,” said Scott Godown, former vice president of the Montana state NWTF chapter.

“These birds are so closely associated with humans, they’re a far cry from wild birds,” Coates said. Managing the birds is difficult, since it’s legal to have turkeys, but illegal to release them. Many people’s definition of “having” turkeys is to let them roam freely around their property and the surrounding area, which is really no different than “releasing” them, Coates said.

“There’s very little we can do as an agency because the birds are so close to people. We’re walking a tightrope,” he said.

“What starts out as interesting ends up a nightmare,” Coates said. When you feed wild turkeys, you can easily go from 5 or 6 to 40 or 50. The problem snowballs, as winter feeding congregates turkeys, which attracts predators such as mountain lions, black bears and grizzlies. “If you’re feeding turkeys, you’re inviting predators into your yard,” he said.

In an area like the Flathead, which has a mountain lion density of one cat for every 10 square miles, the threat of attracting carnivores is legitimate. And if turkeys eating corn and grain handouts don’t devour their free food by early spring, it becomes an attractant for bears leaving their winter dens in search of food.

The Flathead turkeys have even triggered a rift among the ranks of the NWTF chapters in Montana. Many western Montana chapters would like to see the entire state have healthy Merriam's populations, but the volunteers in Kalispell have fought hard to keep their easterns.

FWP knows it can't go in and wipe out all the easterns and re-stock the valley with Merriam's. If wiping out a few small pockets of pen-raised problem birds would ignite a public relations scandal in western Montana, imagine the stir caused by the mass killing of 10,000 turkeys in the Flathead.

"We don't want to equate extermination with hunting," Williams said.

Lisa Trebas, president of the NWTF's Kalispell chapter and member of the Montana NWTF state board, said the Flathead birds are underestimated.

"They're still wild turkeys," she said. "Once they've been hunted, they get wise. They're as wild as any other eastern turkey."

"We have to deal with the birds we have here," she said. "Three years ago, FWP wouldn't even talk to us about our turkeys." But now, the Kalispell chapter has a great relationship with FWP, she said.

Trebas said the NWTF's goal in the Flathead is to increase turkey hunting opportunities by working closely with private landowners who need help controlling the numbers of birds on their property, and by trapping their problem birds and releasing them on public lands where hunters can pursue them.

In September 2001, the Kalispell chapter petitioned FWP for an over the counter licensing system for Flathead Valley turkey hunters, in which the number of hunters who could obtain a 2002 spring gobbler tag would be unlimited. It's a marked difference from the old permit system that allocated a pre-determined number of tags each season, which had been steadily increasing in recent years anyway.

The chapter cited increasing hunter interest and a large turkey population as reasons justifying an open hunting season. In a letter to FWP, chapter members said they “believe that increased hunting pressure would have the positive effect of spreading the existing turkey populations within [Flathead and Lake] counties, and thereby further increasing the populations.”

FWP granted their request. The 2002 spring gobbler season will be the first open turkey season in the Flathead. In theory, it sounds like a great way to help landowners reduce their turkey depredation problems, but hunter access will ultimately determine the season’s success.

“Hunters have said they’ll deal with the private property issues, and that shouldn’t be an obstacle that would limit hunting opportunities,” Coates said.

Most NWTF volunteers around the state are glad to see the Kalispell chapter taking a proactive step in managing their turkeys, but opinions vary as to whether the open season will trim the easterns by a noticeable number.

“Even though I don’t like the open season up there, and I think they could have done something different, I think the fact that they’re taking a step toward management is awesome,” said Jennifer Manning, Montana state NWTF chapter secretary.

“The NWTF is about increasing hunting opportunities, and we support their attempt to make that happen,” she said. “They took a big step and established a relationship with FWP, and they deserve a big hand for that.”

Dale Manning, her husband and vice president of the Montana state NWTF chapter, said turkey hunting in the Flathead can be as good - or bad - as a hunter wants it to be. “I’ve hunted there since the late 1980s, and you can make your turkey hunting experience whatever you want it to be,” he said.

“If you can get permission from someone who’s feeding turkeys dog food, and you shoot one in his driveway - if that’s turkey hunting to you, have at it,” Manning said. “But you can also find those bigger pieces of land with fewer birds, where the birds react differently to hunters, and you won’t be able to walk up a driveway and blast one.”

FWP’s opinions of the open Flathead season also vary. While skeptics consider the easterns there to be illegitimate turkeys, Long said that for many Montana hunters, a turkey is a turkey, and sub-species differences aren’t an issue.

Some FWP officials believe that since access to private property is so limited, the open season will do little trim the Flathead’s flocks. McCarthy said “it’s tough to put a dent in that population,” and Ken Walchek, a retired FWP biologist and avid turkey hunter, said the problem is just too big, and won’t be solved with an open hunting season.

Coates is also skeptical. “The birds are quite visible, but access is the big issue for hunters,” he said. “You may be on one side of a fence where you have permission to hunt, but the birds might be on the other side.”

Andrew McKean, president of the Montana state NWTF chapter, said it’s hard to make generalizations about the Flathead. “I wince when I hear people say, ‘The Flathead is this way,’ or ‘Eastern Montana is this way,’” he said. “The bottom line is that turkeys reflect land use. If we put Merriam’s in residential areas, they’d be as habituated as the easterns we have now in the Flathead.”



### **Supplemental winter feeding**

Michael Hanson and his two brothers own and operate a 54,000-acre ranch with 2,500 head of cattle 30 miles south of Ekalaka in eastern Montana. Their barnyard is a perennial winter feeding ground for hungry turkeys, but Hanson and his family enjoy hosting the birds.

“It’s nice to have them around,” he said. “Sure, they can cause damage, but only in tough winters. And besides, they do their job by keeping the grasshoppers away in the summer.”

Hanson said that approximately 500 birds frequent his hay bales in the winter, but most of the flocks usually consist no more than 40 or 50 birds. He said that during the winter of 2002, which was milder than those in recent years, the turkeys ripped up 30 or 40 of his bales. During a tough winter, though, the birds can go through 100 or more, he said.

Each bale weighs in excess of 1,000 pounds, and costs roughly \$30. Hanson considers the turkeys’ feeding frenzy this winter “minimal,” and he doesn’t mind helping the birds make it through the rough winter months because as soon as the spring comes and turkey hunters hit the woods, the birds leave his ranch for higher ground, he said.

Supplemental winter feeding of wild turkeys has been controversial for decades. In his 1966 book “The Wild Turkey,” A.W. Schorger says, “When serious management of turkey populations was begun, it was assumed that supplemental winter feeding would be highly beneficial.” A few paragraphs later, he asserts that “artificial feeding is not recommended except under very adverse conditions.”

These two somewhat contradictory statements sum up Montana Fish, Wildlife and Parks' (FWP) ambiguous attitude toward supplemental winter feeding of any wildlife, not just turkeys. They have a staunch policy against it, and the last thing they want to do is create bait stations for deer, elk and other big game. Yet they often look the other way when landowners toss out a little corn or grain for turkeys.

It's illegal to feed wildlife in Montana, but FWP knows it happens. To try to enforce the law in every situation would be impractical, just as preventing illegal releases of pen-raised birds is impossible.

"Montana, being on the northern fringe of the Merriam's range, does not provide the variety of mast producing plants found in the ancestral range," wrote Bob Greene and Bob Eng in their wild turkey management plan. "This lack of diverse natural food supply during severe winter conditions may result in excessive mortality and reduced reproduction."

Combine those facts with FWP's reputation for placing non-native species like turkeys low on the department's priority list, and you end up with several thousand hungry turkeys looking for a handout every winter, which results in unhappy landowners and overworked biologists.

The majority of the Merriam's in eastern Montana depend on agricultural operations to make it through the winter. Turkeys are opportunistic feeders, and they often scavenge on waste grain in harvested fields. In extreme conditions, whole flocks will spend entire winters loafing in ranchers' barnyards, eating hay alongside cattle. But once the snow melts, the birds head for the hills, where they can find food on their own.

The financial loss to landowners like the Hansons is generally minimal. It's typically a symbiotic relationship, and most landowners look the other way - and even enjoy it - when the birds set up camp in their barnyards in the winter. Most folks will

tolerate the birds as long as they're presence is short-lived, and they look the other way when turkeys tear apart their hay bales.

Eastern Montana ranches like Hansons' provide most of the Merriam's for releases into suitable turkey habitat in western Montana, so having birds congregate near barns and cattle yards in the winter helps keep turkey transplanting going in Montana.

Western Montana is a different story. With considerably fewer turkeys, many landowners consider them a novelty, and the birds can quickly become very habituated, especially in winter. While the majority of these problem birds are feral easterns and Merriam's-eastern hybrids, genetically pure Merriam's can also become habituated if they find a willing landowner.

It's common for birds in western Montana to feast on dog food, birdseed, cracked corn, sunflower seeds, bagged grain and other non-natural foods. A 1982 survey of landowners in the Bitterroot Valley in western Montana conducted by Dan Ermatinger of FWP revealed that 52 percent felt turkeys could not survive the winter without a hand. Many landowners reported feeding turkeys wheat, barley, rolled oats, peas, chicken scratch mix and straw - usually near their barns or yards, where they could easily view the birds.

As Greene and Eng noted in their management plan, "If flocks are to be established and maintained, a supplemental winter food source will be required." However, "it would be impractical for a management agency to be involved with such a project unless the flock could disperse seasonally where they would be available to the hunting public."

That's the problem. Many flocks in western Montana, such as the easterns in the Flathead Valley, have become so accustomed to free food that they're a nuisance. They don't leave. All year long, they roost on cars and decks, chase kids at bus stops, mate



and poop on porches, and overstay their welcome ten times over. If people are willing to tolerate these messy side effects, that's their prerogative. But those who call in to report "problem birds" often don't want hunters on their property, so FWP's hands are tied.

"You get into a predicament when the landowners who are doing the supplemental feeding feel that those birds are theirs," said Bill Thomas, FWP information officer. "It's a catch 22. The more the landowners help them in the winter, the better the turkeys will do. But the more the landowners help the turkeys, the less likely they are to allow someone to hunt them."

Not everyone fits that mold, though. Max Bauer, who lives in the Bitterroot Valley in western Montana, feeds cracked corn to the birds that frequent his property in order to help them through the winter.

"When winter comes, there's no food," Bauer said. "The only way turkeys in eastern Montana got to where they are is because ranchers are willing to feed them. If they're not fed in the winter, they're not going to make it."

"The thought that all turkeys are self-sustaining is a nice thought," Bauer said, "but I know we didn't get where we are today with our turkeys in Montana without people feeding them."

"Even though I feed them, I don't think I own them," he said. "I gladly allow hunting for those who draw permits."

Though opinions over the pros and cons of supplemental winter feeding vary, landowners and FWP agree that the issue needs to be addressed, and some common ground must be reached. Montana's weather can turn ugly at the drop of a hat, and Old Man Winter often throws the state's wildlife a wicked curve ball. The last thing anybody wants is for whole flocks to be decimated by nasty weather.

“The biggest limiting factor to wild birds is reliable winter food supply,” Thomas said. “In central and eastern Montana, where populations flourish, they have at least waste grain in harvested fields to go to. Wild turkeys can depend on other sources for reliable winter food supply, but not when there’s 100 inches of snow,” he said.

Mack Long, FWP regional supervisor, said it’s the side effects of winter feeding that worry FWP. “Turkeys are very dependent on isolated agricultural operations, and when you start leaving standing grain to get turkeys through, that’s going to pull in deer and elk,” he said, “which creates depredation problems for landowners and ranchers - especially in western Montana.”

“When you start down the road of supplemental feeding, it’s hard to get away from it,” Long said. “You may keep your birds longer and have a higher population, but managing for more isn’t always best.”

Dale Tribby, supervisory natural resource specialist for the Bureau of Land Management in Miles City and a member of Montana’s National Wild Turkey Federation (NWTF) Technical Committee, said Montana’s birds wouldn’t make it without barnyards and grain bales.

“If we’re serious about turkeys in our environment, we need a mechanism in place to help them survive,” he said.

The NWTF believes it has found such a mechanism in its Operation Big Sky (OBS) program. One of the Federation’s newer initiatives in the West, the program has a two-fold objective. It allocates money to NWTF chapters for planting trees, fruit bearing shrubs, and strips of grain, and also for a grain bale project.

The grain bale portion of OBS is modeled after Wyoming’s winter feeding program, which, according to Harry Harju, assistant chief of Wyoming Game and Fish’s wildlife division, began in the winter of 1996-1997 in response to a landowner’s

complaint of turkeys destroying his bales. The man wanted netting to cover his bales to keep the birds from completely destroying them, but Harju felt that a longer-lasting solution was warranted, he said.

That particular winter was very harsh, and many NWTF chapters in Wyoming wanted to feed turkeys bagged grain to help sustain them - a program the NWTF has never endorsed due to the negative connotation associated with giving wildlife bagged feed.

Given the brutal weather, Harju said he “cheated” and spent nearly \$4,000 of his budget on bagged grain. But there was a catch, he said. He distributed the grain to various chapters with the condition that it was a one-time deal, and that they would agree on a better solution the following winter.

“You can’t put turkeys where they weren’t and not help them out,” he said. “You can’t keep them alive without something to eat in the winter.”

The answer seemed to be providing landowners with grain bales that they could put on the edges of their fields. This gives turkeys a steady winter food supply without attracting them to barnyards and haystacks.

“I won’t be a phony,” Harju said. He expects “purists” to argue the merits of OBS, he said, but he feels that the West “needs to provide for turkeys’ life requirements if [we’re] going to put them here.”

Harju said bales work better than paying landowners to leave a few acres of standing grain for turkeys, at least in the West. The West’s dry climate requires expensive irrigation systems and cooperative landowners to make that method a success, he said.

The following winter, the Gillette NWTF chapter started distributing grain bales to landowners who reported turkey depredation to their haystacks. The program had a

few kinks to work out, such as how to efficiently distribute the heavy bales across a state as big as Wyoming.

Today, Wyoming NWTF chapters take the bales to a handful of sites across the state, and landowners can pick up as many as they need to sustain the wild turkeys on their property. Most landowners need three or four bales per winter, which is nearly two tons of grain. The weed-free bales cost the NWTF chapters roughly \$70 per ton.

Tex Iverson, president of Wyoming's Campbell County NWTF chapter, said the bales are a big hit with landowners. His chapter bought 90 tons worth of baled oat hay in 2001, and switched from a horse trailer to a semi-trailer to distribute them to the drop-off sites. They can now move as many as 30 bales at a time, he said, which helps get them to landowners more efficiently.

Iverson said the threat of the bales attracting other wildlife isn't a big concern. "They all have to eat," he said, but he has never heard ranchers complain about the bales being a magnet for other animals.

The NWTF took note of Wyoming's program, and it evolved into Operation Big Sky. Today, each state is given \$5,000 from the NWTF's National Projects Budget to cover the costs of making and distributing the bales. If a state doesn't need all of its allocated OBS funds, other states may petition the NWTF for more money.

Besides buying bales for landowners, OBS allows NWTF chapters to pay landowners for their own bales, and for moving them to the fringes of their property. Using a landowner's own bales reduces the threat of introducing noxious weeds onto a farmer's property from a bale produced in another part of the state.

A big advantage of the bales is that by luring turkeys away from houses and barnyards, you create more recreational opportunities for turkey hunters, Harju said.

Other western states are taking note of OBS, and have adopted similar programs. Both parts of the plan - the bales and the planting of food plots - have pros and cons, and must be evaluated on a case by case basis. If the climate is dry, for example, bales are preferred. If the growing season is milder, and the threat of consistent, heavy snow isn't there, leaving standing grain or planting fruit-bearing trees and shrubs is likely the better choice, since they will protrude from the snow where turkeys can feed on them.

Many Western states are emphasizing this habitat improvement component of OBS. Idaho, for example, is working on several habitat enhancement projects in addition to the use of grain bales. Idaho NWTF chapters have also paid farmers to leave small plots of standing grain for turkeys.

Idaho has an official program in place to develop public and private lands for upland game birds and waterfowl. Its Habitat Improvement Program (HIP) is designed to "provide technical and financial assistance to private landowners and public land managers who want to enhance upland game bird and waterfowl habitat," according to Idaho Fish and Game's Web site.

Jeff Gould, a wildlife biologist with Idaho Fish & Game, said he prefers to enhance turkey habitat rather than set up bales. Idaho is presently working on a variety of habitat projects through HIP, he said. Examples include the creation of food plots consisting of standing grain, native shrubs and fruit-bearing bushes and trees, as well the fencing off of springs from cattle so turkeys have reliable water sources in the winter. Idaho is also developing shrubby winter habitat and cover, and enhancing riparian cover for year-round use by turkey poults, Gould said.

Like Harju, Gould said that the West's dry climate limits the success of habitat enhancement projects. "Developing winter habitat for turkeys is tough in non-

agricultural areas,” he said. “You need to mass produce fruit-bearing shrubs, but it’s difficult when the growing conditions aren’t conducive to this. Plus, deer will feed on the plants, so you can’t contain it to just turkeys.”

HIP is funded through the sale of hunting licenses, and calls for cost sharing on approved projects costing up to \$2,000. Landowners are reimbursed up to 75 percent of their out-of-pocket expenses to complete the project, and are generally required to maintain projects for at least 10 years.

Idaho has another system for supplemental winter feeding of turkeys, and it’s a great deal more controversial than grain bales. Southern Idaho has a winter corn-feeding program in place. The program has been around for about the past six years, and involves several seed companies donating corn to NWTF chapters. The volunteers sack the corn and give it to Idaho Fish & Game, who in turn drop it off at distribution sites for landowners to pick up, said Paul Waldon, president of Idaho’s Gem State NWTF chapter.

In 2002, volunteers from the Gem State and Snake River chapters, the only two chapters involved with the program, sacked more than 40 tons of corn, Waldon said. A group of 12 to 18 volunteers can sack as much as 10 tons per day, and everyone involved “sacrifices their hunting time to help out,” he said.

Waldon realizes that feeding turkeys sacked feed, such as corn or grain, is frowned upon by many NWTF volunteers and the national office.

“It’s always necessary in some areas. I’m not advocating that it’s right or wrong, but it does make a difference,” he said. “We encourage farmers to stop feeding turkeys by mid-March when the snow recedes, and the birds usually leave shortly afterwards.”

He’d like to see Idaho move away from the corn program, he said, and pursue more bales and food plots with standing grain and fruit-bearing shrubs.

“There are two schools of thought regarding the bales,” Waldon said. “Some people say they make a difference, and others aren’t sure. They’re both right. The glass could be half full or half empty.”

It’s “a matter of perspective,” and a controversial issue with no right or wrong answers, but it seems to be working - and fish and game agencies deserve credit for their willingness to partner with the NWTF and experiment with the bales, he said.

Fish and game agencies are “damned if they do, and damned if they don’t,” Waldon said, since they approach winter feeding from a biological perspective, while others, such as landowners, approach it from an emotional perspective. “There have been differences of opinion, but we apply common sense and biology with how we proceed,” he said.

Trial and error should sort out the merits and problems with winter feeding, Waldon said. “Turkeys and turkey hunting in the West have done better than we ever imagined, and hunter numbers have paralleled it,” he said. “But turkeys are a recent phenomenon in the West, and we’re still experiencing growing pains. It’s generally good, though. We’ve done something good, and now we’re trying to manage the goodness,” he said. “Now we need to run with it, apply biology wherever we can, and do with it what we can.”

Others take a more negative stance on winter feeding. Rick Hoffman, avian researcher for the Colorado Division of Wildlife and a member of the North American Grouse Partnership, said that turkeys distract wildlife officials from issues important to the survival of other upland birds, such as sage grouse. He spends much of his time working on issues pertinent to sharp-tailed and sage grouse, he said, and he basically inherited Colorado’s turkey responsibilities.

Colorado faces the same turkey management concerns as other western states, Hoffman said. It has its share of pen-raised wild turkeys, and it's presently working on a number of habitat enhancement projects.

But he'd like to see a limit on the amount of supplemental winter feeding Colorado does for turkeys, he said. "The NWTF has carried this turkey thing too far, and has gone from turkey management to turkey farming," Hoffman said. "If the birds can't survive on their own in natural habitat, we shouldn't feed them at all."

"We're really trying to play God," he said.

"With the concern over native upland birds, should we even bother with turkeys?" he said. Because there's a negative connotation associated with sagebrush, the public equates species like sage grouse, coyotes and other sage-dwelling animals as "vermin," he said, and they tend to focus on turkeys rather than the endangered sage grouse.

"It's easier to do things for turkeys because they're more popular than grouse," Hoffman said.

Opinions of OBS and winter feeding also vary in Montana. As with its neighboring states, the norm is for NWTF volunteers to stand behind it, and wildlife officials to question its effects on other wildlife.

"Supplemental feeding is a dirty word as far as the state is concerned," said Dale Manning, vice president of the Montana state NWTF chapter. "It's always an issue when we release birds into areas where there's elk and other big game."

"We want turkeys to survive on what is out there for them, not what we're supplying to them," he said, "but there are some ways to make the area they're in more suitable, such as leaving standing grain for them."



Manning said the NWTf and FWP need to pursue OBS, and work with landowners to leave grain bales on the fringes of their property, and also to plant native shrubs and trees for turkeys, such as chokecherries, Hawthorne berries, snowberries and huckleberries.

Andrew McKean, president of the Montana state NWTf chapter, believes there's potential to use OBS to help brighten the outlook in the Flathead.

He's presently negotiating with Charles Lapp, a landowner in Bigfork, Mont., to sign a standing grain contract for next year. Lapp is one of the few Flathead Valley landowners with legitimate turkey depredation problems, McKean said. He used to raise cattle, and a flock of turkeys would come down from the ridges each day and feed alongside the cattle in his barnyard. Lapp no longer raises cattle, but he does grow hay and grain, which the birds target each winter.

"He has a true agricultural operation with real depredation, which, in the Flathead, is the only way we're going to do OBS," McKean said. "We're not going to do OBS for subdivision turkeys."

Lapp recognizes that winter feeding is controversial, and that's why he wants to pursue the more natural method of leaving standing grain, he said. "You shouldn't feed turkeys when there's natural food," he said. "When spring comes, the birds should be able to get by on their own."

"I respect the state's stance on winter feeding and artificial feeding in general, but I don't respect their rigidity about it," McKean said. "It's happening, and they need to be clear-eyed that somebody is paying for it."

McKean said that since OBS is only one year-old in Montana, there's still much to learn. He'd like to emulate Wyoming's program, and have several sites at which to distribute weed-free grain bales for ranchers and farmers to pick up, he said. The

problem, though, has been finding a grower in Montana who produces certified weed-free bales.

“I’m hyper conscious of the noxious weed issue,” he said. “Noxious weeds are probably one of the biggest issues right now in the inter-mountain West, and the last thing the NWTF wants to do is put out bales that contain noxious weeds.”

McKean said that besides working with Lapp, the NWTF has also purchased bales - at \$50 each - from five landowners who agreed to set them out away from their barnyards for turkeys. Their checks have been sent, he said, and he’s waiting to see if the bales succeeded. Standing grain contracts, like the one he’s pursuing with Lapp, will probably cost the NWTF around \$25 per acre, McKean said.

OBS will be more successful if NWTF volunteers foster better relations with landowners, McKean said. “They haven’t reached out to us for help that much, and we really haven’t done a good job of reaching out to them either,” he said.

FWP has taken some heat for not embracing the winter feeding issue as strongly as other states like Idaho and Wyoming.

John McCarthy, FWP’s upland game bird coordinator, said the popular excuse that “there’s just no time for turkeys” is valid. “We hear that Montana is behind other western states in terms of our turkey management, but every time the legislature meets, the public has the opportunity to go in and get us some more bodies,” he said. “We haven’t seen a new body in the wildlife division in years. We’re pretty well maxed out with our personnel.”

Some FWP officials remain open minded about OBS. McCarthy said that out of all the options OBS gives NWTF volunteers, FWP prefers standing grain. Bales may be OK in some areas, he said, but “they had better be gone by the start of the spring turkey season.”

Long agrees. “The best way to go about this is to leave standing grain,” he said. FWP would also like to go with natural approaches with native shrubs and plants that will provide natural cover and food for turkeys and other upland birds, he said.

“We don’t prefer to bale grain because it’s an automatic magnet to suck in elk and deer,” Long said. “If you leave out big bales of grain, you’re going to have other game damage problems, so that’s not our preferred way to do it.”

OBS, while still in its infancy, has marked a significant step forward regarding winter feeding issues in the West. The program has been effective in getting the NWTF, state wildlife agencies and landowners talking about how to better sustain wild turkeys during tough winters. Though many wildlife officials are opposed to supplemental winter feeding, in places such as Montana, where turkeys aren’t native, it seems only fair that since man put the birds there, he should help them out when times are tough.

Though OBS gives NWTF chapters several methods for providing supplemental winter food for turkeys, each option has a common goal: to reduce wild turkeys’ reliance on man. If that can be achieved, landowners, turkeys, sportsmen and wildlife agencies alike stand to benefit from the program.

### **Montana's new upland game bird program (Sidebar 2)**

Wild turkeys are included in Montana's new Upland Game Bird Release Program. The state will fund releases of wild, free-ranging turkeys trapped in Montana, or those that Montana Fish, Wildlife and Parks (FWP) brings into the state.

In 2001, the legislature approved the two-part program. One part, House Bill 434, mandates FWP spends a minimum of \$30,000 on upland game birds. Two dollars from every resident hunting license and \$23 from every nonresident license supply the revenue for the fund. The money will primarily be spent on pheasants, but there will be increased funds for wild turkeys, said John McCarthy, FWP's upland game bird coordinator.

Up until now, funds for turkey transplants have come out of FWP's regional budgets, or paid for by National Wild Turkey Federation (NWTf) chapters.

"In the past, the NWTf paid for a good chunk of the releases," McCarthy said. He'd rather see the NWTf put its money into things like habitat enhancement, he said.

McCarthy said the money may also be spent to build new walk-in turkey traps. FWP and the NWTf would keep them at trapping sites across the state. If FWP pays for the materials, NWTf volunteers would gladly build the traps, said Andrew McKean, president of the Montana state NWTf chapter.

The program's other component is called the Upland Game Bird Habitat Enhancement Program. Like Idaho's plan, it involves a 75 percent reimbursement to landowners of approved projects. Acceptable projects include those that offer upland game birds things like better winter cover, food plots, nesting cover and shelterbelts.

The program has a few basic guidelines. Projects have a \$200,000 cap, and lands approved for the program must generally be comprised of at least 160 contiguous

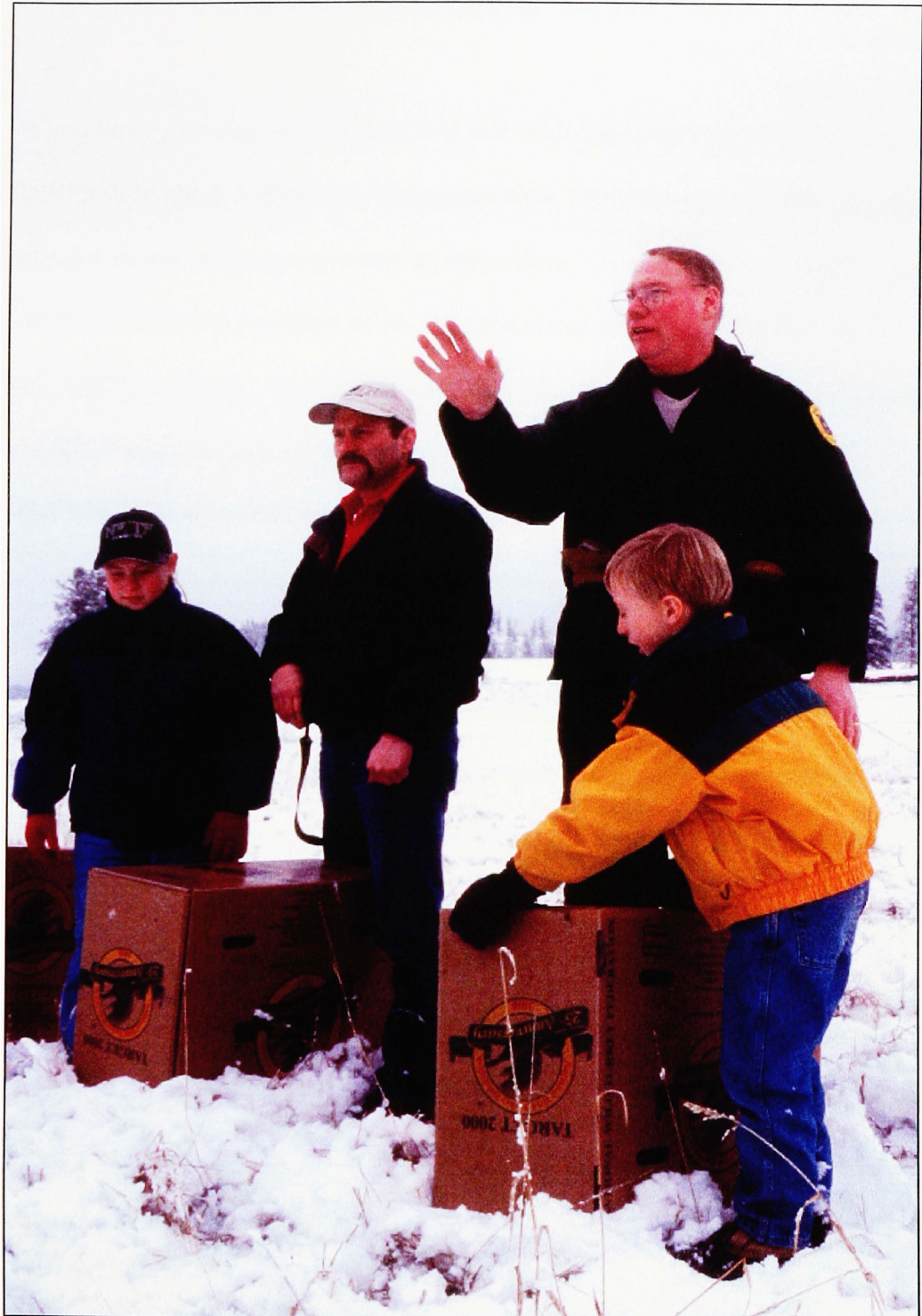
acres. They must remain open to what FWP calls “reasonable public hunting,” which is usually satisfied by landowners allowing their friends and family to hunt on their property.

All projects involving the release of wild turkeys onto private property must undergo an environmental assessment (EA). FWP biologists conduct EAs, and they determine if areas are suitable for wild turkeys, and if there’s a history of previous wild turkey releases in the area. They also determine if supplementing an existing, nearby turkey population would be desirable, and if landowners in the vicinity of the project- those whose properties the newly released turkeys would likely wander onto - would agree to public hunting within a specified, case by case time frame.

Considerations for EAs fall under the general categories of effects to the “physical environment” and the “human environment.” Effects to the physical environment include such things as soil instability and erosion, air quality, water run-off, changes in the diversity, productivity or abundance of plant species in the area, and changes in the diversity or abundance of other wildlife and fish species.

Effects to the human environment include changes in noise levels, land use and community structure, and the aesthetics of the approved site, among other things.

Areas not eligible for the program include hunting preserves, lands that host commercial hunting privileges and lands where rights to hunt are paid for or leased.



**Critical assessment of FWP, and an overview  
of its relationship with the NWTF**

When turkey hunting enthusiasts first met with Montana Fish, Wildlife and Parks (FWP) to talk about wild turkey management in 1999, they got the cold shoulder. Fortunately, the relationship has warmed up since then.

Andrew McKean, president of the Montana state National Wild Turkey Federation (NWTF) chapter, said the meeting was “an attempt to get a baseline feeling from the state of what enthusiasm there was in more actively managing turkeys.”

The NWTF had been in Montana since 1989. The organization was founded on a national level in 1973, and its mission is to conserve wild turkeys. It presently has more than 390,000 members worldwide, and has helped increase the country’s wild turkey population from 1.3 million in 1973 to an estimated 5.6 million today.

The NWTF’s first Montana chapter was started in Bozeman, but since its creation in 1989, not much was getting done in terms of wild turkey management, McKean said.

“Since we really had no state structure at that point, we were voices in the dark,” he said, “but we all agreed that there had to be a more consistent recognition of both wild turkeys and the NWTF’s presence in Montana.”

FWP’s response was not what the NWTF volunteers expected. It was more of a rude awakening, McKean said, and it opened his eyes to what the NWTF was up against with FWP.

“A number of biologists said they had zero interest in managing a non-native species, and they’ll never make it, even if we propagate them in suitable habitat,” McKean said. “They said they tried it in the 1950s, and it didn’t work. End of story.”

Dale Manning, vice president of the Montana state NWTF chapter, said the meeting was “painful.”

“I got frustrated and said, ‘Folks, the NWTF is in Montana, and we have turkeys in Montana,’” Manning said. “‘Whether you want to manage them or not, they’re here, and they need to be managed.’”

Instead of leaving with their tails between their legs, though, the NWTF volunteers tried to take something positive from the meeting.

“As volunteers, the meeting galvanized our interest in saying we all need to work together to have a consistent voice in the state, because it wasn’t going to be an easy push,” McKean said.

Since then, the NWTF has worked hard to foster positive relations with FWP. Today, both sides generally consider the relationship to be an equal partnership. But like any relationship, there are a fair amount of bumps in the road. The NWTF is continually battling the non-native, low priority stigma FWP attaches to wild turkeys. FWP has stood its ground and said it will work with turkeys, but asserts that Montana will never be a prime turkey state.

Though the NWTF is ready to take the reins, it realizes it needs to work alongside FWP to get things done. FWP has many other species to manage, and the last thing the NWTF should do is be too demanding.

“We’re the state wildlife agencies’ friend,” said NWTF biologist Joel Pedersen. The NWTF discourages its members from taking political action to make their points, he said, but rather encourages them to work closely with state bureau chiefs, Technical Committee representatives, and other wildlife officials to sell their ideas.

“Without the state agencies as an active partner with us - no matter how much money we raise - we can’t get the money on the ground for turkeys,” Pedersen said.



Although FWP still considers wild turkeys a low priority, it realizes its flocks need to be properly managed, and it's taking measures to do just that, such as its new upland game bird program.

The program, which the Montana Legislature approved in 2001, allocates money for the release of wild, free-ranging turkeys, and also outlines a cost sharing program in which landowners can partner with FWP to improve their land for the benefit of wild turkeys. Projects will include the creation and enhancement of such things as winter cover, food plots and nesting cover for turkeys. The program will also provide the NWTF with funds to build new turkey traps, and have them available across the state to make turkey trapping more efficient.

It should prove to be a big step in the right direction for making wild turkeys more of a priority. Habitat enhancement is the hot topic in FWP's wildlife management plans right now. If the NWTF is to legitimize turkeys, it needs to jump on the bandwagon and hold on tightly.

The NWTF's Operation Big Sky, a program designed to help western farmers reduce turkey depredation problems by creating food plots to distract turkeys away from haystacks, should also help the NWTF get more actively involved in habitat enhancement.

Such programs are starting to get FWP's attention. Bill Thomas, FWP information officer, said the NWTF's focus has historically been on moving turkeys into new areas of the state, while other wildlife conservation groups, such as the Rocky Mountain Elk Foundation, Ducks Unlimited and Trout Unlimited, and are more concerned with improving habitat. This is partly because the animals they advocate are already well established in Montana - unlike turkeys, which are still finding their place, he said.

“Turkeys are still the new boy on the block,” Thomas said, “but I do whatever I can to promote the NWTF, and make them as effective as they can be,” he said. “They really deserve the credit on this second, renewed effort to establish turkeys in Montana, and it hasn’t been easy for them to get the state’s attention.”

Habitat enhancement usually isn’t as exciting or as tangible as releasing wildlife, said Mack Long, FWP regional supervisor, since it can take several years to develop a habitat plan and see the results and benefits to wildlife. But it’s all part of what Long calls a “holistic” approach to wildlife management. He said that releasing wildlife into new areas, developing and improving habitat and working with landowners are all equally important pieces of the puzzle, and each must be given equal consideration for a species’ management to be effective.

Jennifer Manning, secretary of the Montana state NWTF chapter, said habitat enhancement is the NWTF’s next mission in Montana. “I can envision a day in the near future when a good habitat project will be as rewarding as seeing turkeys fly out of a box at a new release site,” she said.

Working closely with FWP to improve habitat has worked well for Trout Unlimited (TU) in Montana. The organization, which has 13 chapters and 2,500 members statewide, concentrates its effort and budget on protecting and restoring waterways for native fish, especially trout.

Kate Grant, assistant to TU’s executive director, said that while the organization is involved with westslope cutthroat trout and grayling re-introductions, it spends roughly 70 percent of its time working with other groups to improve habitat. TU works with irrigators, landowners, mining companies, timber companies and other groups to monitor water quality, keep water in streams, and restore damaged waterways.

TU's problems are very similar to the NWTF's. It works hard to minimize competition and hybridization from non-native fish, and it often feels limited by legislation and administrative roadblocks, Grant said. Its relationship with the state can be frustrating at times, but TU, like the NWTF, realizes it must be an equal partner with the state, rather than lead the way, she said.

The NWTF can't take credit for bringing wild turkeys to Montana, but it can share the spotlight with FWP for increasing turkey populations and their range in recent years. Perhaps the NWTF's greatest accomplishment in Montana has been spreading its excitement and passion for turkeys to the public, and educating people about the recreational benefits turkeys offer sportsmen.

Given the strong relationship between FWP and Montana's NWTF chapters, the future looks brighter for wild turkeys as a game bird in Montana. FWP's new upland game bird programs should contribute more money to the NWTF's cause, but, perhaps more importantly, help to legitimize the non-native bird in a state where native species demand FWP's time and attention.

Both sides recognize there is much work left to do. McKean and Manning hope to develop a turkey transplanting checklist for FWP, which would include a list of all necessary equipment, as well as directions for what to do if certain parts brake or malfunction. They also hope to compile a list of landowners who have turkey depredation problems, and use that list to schedule more turkey transplants from problem areas into public lands where they can be hunted.

The NWTF volunteers don't mind doing the bulk of the planning, legwork and logistics, if that's what it takes to move more turkeys around the state, but they need to be on the same page as FWP.

“We don’t trap birds, the state does,” McKean said. “We can be their partners, and we’ll grease the skids and do whatever we need to do to make it easy for the state to manage the birds.”

“I have a huge amount of respect for FWP biologists because their plates are so full,” McKean said, “and that’s why we can help them.”

Montana’s NWTF volunteers also hope to convince FWP to hire a fulltime, statewide wild turkey biologist, or for the NWTF to hire a regional biologist whose territory would include Montana. At this point, most FWP officials say there’s not enough work to keep a full-time turkey biologist busy in Montana, but there’s at least room for discussion.

“If we had a regional biologist who could come in and help with environmental assessments for release sites, we’re sure aren’t going to balk at it,” said John McCarthy, FWP’s upland game bird coordinator. It would help keep relationships tighter, he said, since the NWTF’s headquarters in South Carolina is a long way from Montana.

Pedersen said the NWTF hasn’t yet had the budget to hire a turkey biologist to cover Montana, Idaho, Wyoming and South Dakota, though it eventually hopes to have regional biologists’ territories cover all 48 contiguous states.

“We’re in a business like other companies,” he said. “We can’t spend more than we earn.”

Stan Baker, the NWTF’s southwest regional biologist, covers New Mexico, Arizona, Utah and Colorado. He said the regional biologist program is a “great way to partner with state fish and game agencies, lend expertise to turkey management, and prove to state agencies that the NWTF is serious about partnering with them to save them time, money and resources.”

Baker said New Mexico is the only state west of Texas to have hired a full-time wild turkey biologist, and the NWTF presently only has six regional biologists in the field.

Baker said he hopes other states will follow New Mexico's lead, but, like Pedersen, he cautioned NWTF volunteers not to push their state agencies too far.

A lot of the NWTF's western volunteers are excited, and they don't feel as if turkeys are getting enough attention, he said.

"But our job is not to tell state agencies what to do," Baker said. "Our role is to help and support them by raising money for turkey transplants and habitat, and to show by example that turkeys are fun to watch and are unobtrusive."

If the NWTF can continue to demonstrate public demand for turkeys and the positive public relations and revenue turkeys can generate, then perhaps other states will follow New Mexico's lead, Baker said.

Whatever the future holds for turkeys in Montana, it's clear that FWP and the NWTF have taken positive steps to ensure it will be as successful as time and budget constraints will allow.

"Realistically, we're never going to be a big turkey state, and we just don't have the birds that other states do," said Mack Long, FWP regional supervisor. "But we're not at the level of birds we need to be yet, either. There are still places that birds can go. We just need to keep looking for those opportunities."

Jennifer Manning said it's up to NWTF volunteers in Montana to seek out such opportunities. "We just need to keep talking to landowners," she said. "It's about being out there and paying attention to whose property we're deer and pheasant hunting on, and noting which places might make good turkey transplant sites," she said. "It's about

keeping your eyes and ears open and looking at things in a new way. It's just part of the learning process."

And that's exactly what the last 48 years have been for Montana and its wild turkeys - a learning process. Ever since Bob Eng opened the box and let the first Merriam's go back in 1954, the wild turkey's destiny in Montana has been uncertain. But with each new release, a new page is added to the script, and the final curtain is far from falling.

Other western states may be right; Montana may need to play catch-up with its wild turkey management, and perhaps FWP owes the state's turkeys a bigger chunk of its time. Montanans march to the beat of their own drummer, and that fact transcends all areas of life. Wildlife management is no exception. NWTF volunteers will continue to push for more birds and the bucks to move them around, and FWP will continue to deliver in the measure it deems appropriate.

"Turkeys are in a good enough light that their management should be more clearly defined in the future," Long said. "It's a great opportunity for hunters, and we just have to be cognizant of all the issues surrounding native species - to not go too fast, and try to do the right things as we go."

Such cautious optimism is what got wild turkeys on the ground in Montana in the first place, and what will likely sustain them in the future.





**NWTF statistics (Sidebar 3)**Montana NWTF state chapter facts:

- 10 chapters across the state
- helped FWP trap and transplant 224 turkeys in 2001
- has spent \$8,300 since 1998 on habitat enhancement projects, including \$2,500 for a GIS-based map of occupied and available wild turkey habitat across the state; Done in conjunction with the Forest Service, the map is a square-mile-scale map of Montana, and will help FWP identify future wild turkey release sites across the state.
- A prescribed burn, also in conjunction with the Forest Service, along the lower Clark Fork River in the Lolo National Forest in western Montana, is scheduled for spring 2002. It will improve habitat for turkeys and other wildlife by reclaiming and restoring open Ponderosa pine and grassland habitat that is presently choked out by undergrowth.
- has spent over \$7,500 since 1997 on wild turkey transplants, including \$3,750 for the purchase of three rocket nets for FWP
- has spent over \$12,000 since 2000 on kids outreach programs, including scholarships, 6 wild turkey education boxes, which are distributed in elementary school classrooms and help teach kids about science and the environment; also gives \$2,000 annually to fund Montana 4H coach's training (4H coaches lead seminars for kids to learn gun and archery marksmanship and safety.)



- The 2001 JAKES Day in the Canyon Ferry Management Area east of Helena won an award at the NWTF's 2002 national convention for the best JAKES day in the nation for a group of 100-200 kids.
- will sponsor its first-ever youth turkey hunt in spring 2002
- will hold its first-ever Women in the Outdoors event on June 8 in Potomac; expects 75 women to participate and learn about rifle and archery marksmanship, fly casting, Dutch Oven cooking, and landscaping for wildlife
- partnered with FWP to buy a conservation easement in Glasgow along the Milk River; The property will be open to public hunting, and holds turkeys, deer, pheasants, ducks, and other waterfowl.



**The NWTF and wild turkeys in Montana  
and other western states (Sidebar 4)\***

Montana statistics:

- 10 NWTF chapters
- 25,000 square miles occupied by turkeys; 6,000 square miles potential habitat
- 80,000 Merriam's and 5,000 easterns
- 2,294 wild turkeys trapped and transplanted since 1954

Wyoming statistics:

- 8 NWTF chapters
- 4,000 square miles occupied by turkeys; 3,300 square miles potential habitat
- 600 Rio Grande turkeys, 10,000-12,000 Merriam's, 1,000 hybrids
- 5,000 wild turkeys trapped and transplanted since 1935

Idaho statistics:

- 9 NWTF chapters
- 13,000 square miles occupied by turkeys; 600 square miles potential habitat
- 3,000 Rio Grande turkeys, 21,000 Merriam's, 5,500 hybrids, 500 easterns (from pen raised stock)
- 4,200 wild turkeys trapped and transplanted since 1961

Colorado statistics:

- 29 NWTF chapters
- 17,650 square miles occupied by turkeys; 150 square miles potential habitat
- 4,000 Rio Grande turkeys; 18,000 Merriam's
- 2,000+ wild turkeys trapped and transplanted since 1980

\* statistics obtained from transcribed proceedings of the 1999 Wild Turkey Symposium

## **Bibliography**

### Interviews

Baker, Stan; NWTF regional biologist  
Bauer, Max; western Montana landowner  
Brown, Don; retired FWP biologist  
Coates, Kevin; FWP wildlife biologist  
Eng, Robert; retired FWP biologist  
Godown, Scott; NWTF volunteer, Montana  
Gould, Jeff; wildlife biologist, Idaho Department of Fish and Game  
Grant, Kate; executive assistant, Trout Unlimited  
Greene, Robert; retired FWP biologist  
Hanson, Michael; eastern Montana landowner  
Harju, Harry; assistant wildlife division chief, Wyoming Department of Game and Fish  
Hoffman, Rick; avian researcher, Colorado Division of Wildlife  
Iverson, Tex; NWTF volunteer, Wyoming  
Lapp, Charles; Flathead Valley landowner  
Linneweh, Gerry; NWTF volunteer, Montana  
Long, Mack; FWP regional supervisor  
Manning, Dale; vice president, Montana state NWTF chapter  
Manning, Jennifer; secretary, Montana state NWTF chapter  
McCarthy, John; FWP upland game bird coordinator  
McKean, Andrew; president, Montana state NWTF chapter  
Miles, Karri; sales associate, Hamilton Feed & Farm  
Pedersen, Joel; NWTF biologist  
Stuber, Ron; Flathead Valley landowner  
Thomas, Bill; FWP information officer  
Treas, Lisa; NWTF volunteer, Montana  
Tribby, Dale; supervisory natural resource specialist, Bureau of Land Management, Montana  
Walchek, Ken; retired FWP biologist  
Waldon, Paul; NWTF volunteer, Idaho  
Williams, Jim; FWP wildlife manager  
Wunz, Jerry; retired biologist, Pennsylvania Game Commission

## Publications

Devlin, Sherry. "After long absence in Stevensville area, gobblers are back - and their numbers could blossom." *Missoulian*, 20 January 2001.

Ermatinger, Dan. "An Assessment of Merriam's Wild Turkey Distribution in the Bitterroot Valley." *Montana Fish, Wildlife and Parks* (May 1982).

Fraley, John. "Can hatcheries help conserve the westslope cutthroat?" *Montana Outdoors* (March/April 2002).

Gadbow, Daryl. "Turkey hunting fanatics gear up for Montana's spring hunting season." *Missoulian*, 4 April 2001.

Giddings, Brian. "Merriam's on the Move." *Montana Outdoors* (1990).

Greene, Robert & Eng, Robert. "A Management Plan for Wild Turkeys in Montana" (1999).

Hoffman, Rick et. al. "Management Guidelines for Merriam's Wild Turkeys." Colorado Division of Wildlife (April 1993).

Hoffman, Rick. "Toll on Turkeys." *Colorado Outdoors* (November/December 2001).

Hotchkiss, Rob. "A Gobbling Success." *Montana Living* (November/December 2001).

Jonas, Robert. "History of Turkeys in Montana." Doctorate thesis, Montana State University (1966).

Kennamer, Earl et. al. "History of the Wild Turkey in North America." NWTF Technical Bulletin No. 15.

Lollo, Bob & Karen. "Merriam's Turkeys." *Montana Magazine* (December 1994).

Montana Fish, Wildlife and Parks. "Draft Tarkio Merriam's Turkey Transplant Environmental Assessment."

Montana Fish, Wildlife and Parks. "Montana Wild Turkey Management Status Report, 1989-2000."

National Wild Turkey Federation "At A Glance" pamphlet (October-December 2001).

Schorger, A.W. *The Wild Turkey: Its History and Domestication*. Norman, Oklahoma: University of Oklahoma Press, 1966.

Stalling, David. "I-143 protects wildlife, reaffirms our heritage." *Missoulian* guest editorial, 29 November 2001.

Tapley, Jennifer et. al. "Status and Distribution of the Wild Turkey in 1999." Transcribed proceedings from the 1999 National Wild Turkey Symposium.

Tefft, Brian et. al. "Capture of Pen-Reared 'Wild' Turkeys." NWTF Technical Bulletin No. 2 (1994).

Walchek, Ken. "Hunting the Merriam's Turkey in Montana." Montana Fish, Wildlife and Parks.

Walter, Marcella. "Talkin' Turkey: A 1920s Thanksgiving Tale." *Montana Magazine* (December 1994).

#### Web sites

*Colorado Division of Wildlife*. <http://wildlife.state.co.us/> (2002).

*Idaho Department of Fish and Game*. <http://www2.state.id.us/fishgame/> (2002).

*Montana Fish, Wildlife and Parks*. <http://fwp.state.mt.us/> (2002).

*National Wild Turkey Federation*. <http://www.nwtf.org/> (2002).

*Wyoming Department of Game and Fish*. <http://gf.state.wy.us/> (2002).



# Turkey Habitat Occupied and Potential

